

PHILADELPHIA MEDICAL TIMES.

PHILADELPHIA, DECEMBER 11, 1886.

ORIGINAL LECTURES. CLINICAL LECTURE ON HEMORRHAGE FROM THE STOMACH.

*Delivered at the Pennsylvania Hospital, Philadelphia,
November 20, 1886,*

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GENTLEMEN,—The first case I will present to you is that of the patient, about 40 years of age, occupying bed No. 6 in the Men's Medical Ward. He has been in the hospital for some time; his history prior to his admission is that he had been a hard drinker. He passed a tapeworm some nine years ago. He is usually a well man, except when suffering from the effects of drink. He says that last spring he stopped drinking to excess. About five months before admission into the ward (which was on the 3d of November) he vomited blood; he had never done so before. Since that time he has been subject to flatulent dyspepsia.

Upon inquiry he now tells us that he had been troubled with indigestion and had "belched up wind for a good while;" that is, the flatulent dyspepsia preceded the vomiting of blood, although it has been worse since this occurred; he also had been constipated before he vomited blood. His appetite had been poor, and he could not eat much, for a month or two before it came on; and for a couple of weeks he had had morning vomiting before breakfast. In other words, he presented the ordinary symptoms of gastric catarrh.

Shortly before coming here he had a second hemorrhage from the stomach. He was distributing hand-bills at the time, and had walked a good deal. He was taken ill upon the street, and it is stated in the notes that he fainted and fell upon the pavement. He estimates the amount of blood that he vomited to be between a pint and a quart. The blood was mainly dark-colored and clotted; some of it looked fresh. This was five days before admission, but he continued to vomit blood even after he came under treatment. He was brought here as a case of gastric ulcer.

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It was the second attack for which he applied for relief. From the time of the previous one, five months before admission, he had been dyspeptic up to the second attack, which occurred five days before admission, and which was so severe as to cause him to faint and fall in the street. Subsequently he vomited a little blood every day until he came in, and indeed the bleeding did not stop until the second day after admission. Now that we have a clear history of his hæmatemesis, let us inquire more fully into his dyspeptic symptoms. He states that the vomiting comes on usually a short time after eating, but it may come on at irregular times. He has had very little pain in his stomach; he only complains of a little "wind-pain" at times. He appears to have a great dread of solid food and avoids it; he declares that if he ate it "it would kill him." Since admission he has been on liquid diet, but he says that previously he had noticed that he had considerable pain after eating solids. His bowels are almost always constipated. He has no cough. He is very anæmic-looking. His appetite, he says, remains good. After the first day, when he was vomiting dark blood four or five times daily, the discharges from the bowels were little except blood. He has considerable thirst; his mouth and throat are dry.

Now, gentlemen, upon proceeding to examine our patient, you will notice, first, that he is strikingly anæmic. Look at his hands, his conjunctivæ, his tongue! His tongue is pale in spite of a furry coat upon it. He has no disease of the lungs or of the heart; in truth, he has a very well developed chest. There is a systolic basic intracardiac murmur to the left of the sternum, due to the condition of his blood. He has no sponginess of the gums, and no blue line upon them. There is no epigastric soreness, and no enlargement of the spleen. The area of liver-dulness is small, barely extending to the margin of the ribs, and there is no dropsy. I cannot detect any epigastric tumor; but he has a very large rectus muscle upon the right side which might be mistaken for one. He has no pain or tenderness in the back. The liver, as demonstrated by percussion, does not extend upward; it is not displaced, although it barely reaches the costal border.

What is the matter with this man? I

have told you that he was supposed to have had a gastric ulcer. Now, has he a gastric ulcer or not? We come now to a point of much interest, which I will briefly discuss. Here is a man who, most undoubtedly, has had hemorrhages from the stomach, not only one, but a series of them, sufficiently severe to cause him to faint in the street and afterwards to lead him to the hospital, and sufficient to cause profound anæmia. We have also the testimony of those who saw him vomit after admission, and the evidence of the tarry discharges from the bowels. I repeat the question, Has he gastric ulcer or not?

This leads to a discussion of the causes of hemorrhage from the stomach.

Hemorrhage from the stomach is most frequently due, in cases of organic disease, to ulcer or cancer of the organ; where organic disease is not present, it is most often caused by changes in the blood, as, for instance, those which attend purpura and scurvy. Again, the hemorrhage may be due to venous congestion of the stomach, the result of disease of the liver or the spleen, as in some cases of malaria, or accompanying interstitial hepatitis. I might also mention the possibility of hemorrhage from the stomach as a symptom of some acute disease, such as yellow fever, or hemorrhagic malarial and other forms of malarial fever; but these will not enter into our discussion of the case, since he has not a fever-temperature. Casting these acute febrile hemorrhages out of consideration, as excluded by the temperature-record of the patient, which I find is rather below than above the normal, let us take up the other causes for discussion.

Let me state here that the urine has been repeatedly examined for albumen and sugar with a negative result, which is an additional reason—the absence of albumen, at least—for excluding hemorrhagic malarial fever. We may also set aside purpura and scorbutus, since the other essential features are wanting. I may also exclude disease of the spleen, a cause of hæmatemesis much more frequent than generally recognized, by the results of our physical examination.

Taking up organic diseases of the stomach, we ask first, Is it cancer? The absence of severe pains, the irregularity of the vomiting, and the non-existence of a tumor and decided tenderness in the epigastric region, lead me to reject the hy-

pothesis of its being a case of cancer of the stomach.

By the process of exclusion we have now been reduced to two diseases. Has this man ulcer of the stomach? Or has he a disease of a neighboring organ, causing chronic congestion of the gastric mucous membrane and favoring the occurrence of rupture of the smaller vessels? Is it a case of disorder of the stomach with dyspeptic symptoms, due to disease of the liver? In favor of gastric ulcer—and what has given rise in this case to a belief in the existence of a gastric ulcer—is the free hemorrhage. His age is also in favor of this view, and his sex does not oppose it; although it would be stronger as a supposition in the case of a woman than of a man. The pain and gastric disorder are also in its favor. Still, I must pronounce against it, because there is no evidence of local soreness: no spots of tenderness upon pressure are found either in front or back. These are the rule in gastric ulcer. But what is more significant is this: he has no pain whatever, or very slight pain, immediately after taking food. From his very vague answers to my questions upon this point, you could see that the pain certainly is not severe. Even a drink of water would give pain in gastric ulcer at some time or other. He is free from pain while taking soft food; he abstains from solid food because of the flatulence and weak digestion, and not because of the pain. Therefore, from the absence of localized tenderness and the absence of pain after eating, I conclude that it is not a case of gastric ulcer. I admit that there are cases of gastric ulcer which are latent; but the features of the case do not warrant this explanation, and the history decidedly opposes it.

What, then, is the matter with this man? I have already indirectly answered this question. It is a case of hepatitis due to alcohol; and this hepatitis has interfered with the circulation in the gastric mucous membrane, and caused congestion and passive hemorrhage. The persistent indigestion is in favor of this view, and the character of the hemorrhage is in accord with this supposition. The only thing against it is the absence of dropsy. I can account for it only on the grounds that the portal congestion has been relieved by the bleeding, or that possibly the malady has not reached the stage of dropsy.

As his stomach has recovered to some extent, we may direct our attention to the condition of the liver, which is plainly that of cirrhosis caused by alcohol. He shall have bichloride of mercury (gr. $\frac{1}{16}$ thrice daily) and a restricted liquid diet, supplemented, if necessary, by rectal alimentation with peptonized broths or pancreatinized milk. The mercury is given with the view of its effect upon the chronic process of inflammation and increase of connective tissue which is constantly going on in the interior of this man's liver. I would also like to give him iron, to improve his anæmia, and will probably do so later; but I prefer not to order it now, on account of the existing catarrh, and irritability of the stomach.

ORIGINAL COMMUNICATIONS.

A CASE OF PERITONITIS IN ENTERIC FEVER, TERMINATING IN RECOVERY.*

BY J. C. WILSON, M.D.,

Physician to the Hospital of the Jefferson Medical College, etc.

THE following case, very recently under observation, is brought to your attention for two reasons. First, because, as illustrating the fortunate termination of general peritonitis occurring as a complication, or, rather, as a sequel, of enteric fever, it is sufficiently rare to be of interest. Secondly, because it serves as the occasion for some remarks upon the pathology of this complication and for the discussion of measures of treatment which in the graver cases may hereafter be the means of occasionally saving life.

Agnes M., 12 years of age, a school-girl, was taken ill rather suddenly, with headache, dizziness, and inability to take food, August 22, 1886. She continued to be about, however, until the 26th, when I saw her for the first time. The patient is a puny child, lean, and deaf in consequence of suppurative otitis occurring in the course of severe scarlet fever some years ago. Her mother is the care-taker of a large house used for office purposes. The nursing was not in all respects satisfactory, but my directions were intelligently and faithfully carried out, and there is no reason to believe that any error in the mother's man-

agement of the case was operative in bringing about the intestinal complication.

The illness speedily showed itself to be well-characterized, mild enteric fever. The tongue was coated with a whitish-yellow fur; it was red at the tip and edges, and remained so throughout. She had no appetite, and very moderate thirst. The abdomen was slightly distended, tender in the right iliac fossa and around the navel. The bowels were at first confined, later rather loose, although at no time did the stools exceed four in the twenty-four hours. There was moderate enlargement of the spleen. The heart's action was frequent; pulse 100 to 120,—after the first week usually dicrotic. She had a slight cough, and coarse mucous râles were at times observed. The nose bled a few drops on three occasions. The headache ceased on the eighth day, and from that time till defervescence there was slight delirium alternating with somnolence, from which the patient could be easily aroused, only, however, to fall again quickly into the same drowsy state. Upon the sixth day the eruption made its appearance. The rose-spots were few in number, and ceased to appear about the sixteenth day. The urine was of rather small amount, and on repeated examination free from albumen.

The febrile movement was moderate: the highest temperature observed was 103° F. on the evening of the sixth day. With this exception, no temperature exceeding 102.5° F. was recorded. The evening range was, with these exceptions, between 101.5° and 102° F.

The treatment consisted of small doses of carbolic acid and tincture of iodine. Upon the fourth day of the illness, and again upon the sixth, two-grain doses of calomel were administered.

The diet was restricted to liquids, and the patient was not allowed to rise from the bed for any purpose whatever. From the middle of the second week a teaspoonful of whiskey was given in milk every sixth hour.

Defervescence began about the middle of the third week. On the seventeenth day the morning temperature was normal; on the twentieth, the evening temperature was 99.4° F.; and on the twenty-first, defervescence was complete. The patient was now quite weak, but bright, and clamorous for "something to eat." No solid food was permitted, however, until the morning of September 13, the twenty-third day after the beginning of the sickness. A soft-boiled egg, into which was stirred a little finely-crumbed stale bread, was given about 11 A.M. Half an hour later the patient complained of severe pain in the abdomen, and had a chill, which was followed by vomiting. At 7 P.M. I saw her. The vomiting had ceased, but there was intense nausea, with thirst; the tongue was dry; the belly tense and tender; the pulse small, tense, and 140 in the minute; decubi-

* Read at a Clinical Meeting of the Philadelphia County Medical Society, November 17, 1886.

tus dorsal, with knees drawn up; the axillary temperature was 104.5° F. There were not at this time, nor could I find upon careful questioning that there had been, any signs of collapse after the chill. Two hours later Dr. W. W. Keen saw her with me. The temperature had fallen a degree, and the pulse to 120. Upon palpation the whole belly was exquisitely tender, but we both thought that the focus of tenderness was in the right iliac fossa. The pain was general over the abdomen.

The treatment consisted of half a grain of opium by suppository every six hours, and forty drops of paregoric every two hours. The belly was smeared with equal parts of sweet oil and turpentine and covered with a light poultice. A little iced whiskey-and-water from time to time was allowed, but nothing in the way of food was permitted during the night. Early the following morning Dr. Keen saw her again. The general symptoms remained the same. The temperature had, however, fallen to 101° F., and the pulse was fuller, though still 120. The full opium-treatment was continued, so also was the poultice. Light liquid food was prescribed and retained. From this time catheterization was necessary for several days. The urine contained a trace of albumen and a few hyaline casts. Nine days later defervescence, which was gradual, was complete. The belly was still swollen, but less tender. The greatest tenderness was on the right side, in front of the border of the ilium; here there was also local dulness upon percussion.

At the expiration of three weeks recovery seemed to be complete; yet on two occasions within the last month a larger meal than usual has been followed by fever, lasting two or three days, and by tenderness in the right iliac fossa. For the past two weeks the patient has been apparently in her usual health.

Murchison enumerates the following lesions as causing the complication of peritonitis in enteric fever:

Softened infarctions in the spleen; the bursting into the peritoneum of a softened mesentery gland; an abscess in the wall of the urinary bladder or in the ovary or in the sheath of the rectus muscle bursting into the peritoneal cavity; ulceration of the gall-bladder; the propagation by continuity of inflammation from the mucous to the peritoneal coat of the intestine without perforation; and, finally, and by far the most frequently, perforating ulceration of the bowel.

When recovery takes place it is impossible to say with certainty what the lesion has been, but a consideration of knowledge derived from clinical and from post-mortem examinations warrants us in dividing cases

of peritonitis occurring in typhoid fever into two perfectly well characterized groups. The case which I have reported well illustrates the first group; and cases with suddenly-occurring collapse, evidences of peritonitis not followed by improvement and ending fatally in thirty-six or forty-eight hours, illustrate the second group. Between these two groups there is the widest difference. In the systematic works on typhoid fever a limited number of cases of recovery from peritonitis in the course of the disease are recorded. At the same time this complication is of the most serious gravity, and likely in the larger proportion of cases to terminate fatally. The anatomical condition in those cases that recover is fairly well known, partly from the post-mortem examination of cases which have died at a later period from other causes, and partly from the clinical history of cases in which a circumscribed abscess has formed and has been evacuated (either spontaneously or by operation) some weeks or months later.

The most favorable type of the first group of cases may be said to be those in which there is a local peritoneal inflammation, the result of extension from the mucous to the serous surface, without direct penetrating lesion of the wall of the gut. Here, under favorable circumstances, the inflamed patch of intestine becomes adherent by lymph to an adjacent coil of intestine or to other structures, and perforation is averted by the patch which is thus put upon the weakened bowel. There are numerous post-mortem records which show that even where sloughing has led to an actual solution of continuity of the wall of the gut, such adhesions have taken place before there has been any considerable extravasation of the intestinal contents into the peritoneal cavity, and although the patient may present the appearances of general peritonitis, as in the case reported, nevertheless recovery takes place.

From the most favorable instances of this kind there must be by gradations less and less favorable pathological conditions until the case becomes one of serious gravity in consequence of actual extravasation of fecal matter and the formation of a local peritonitis in which, however, the conditions are not such as to make a fatal result unavoidable. From this point, however, to the class of cases which I have designated

as forming the second group the transition is abrupt. Typical cases of this kind are occasionally encountered clinically and in the post-mortem room. As a consequence of the direct death of a portion of the ulcerated wall of the gut, the floor of the ulcer has absolutely dropped out, allowing the extravasation of intestinal contents. A similar condition of things may result from the laceration of an ulcer which has reached down to or through the muscular coat, and has remaining a very slight support at its base. Here, as the result of active peristalsis, however induced, the wall of the ulcer gives way. The bases of deep ulcers, even when not in a condition of sphacelus, are, as the result of inflammatory infiltration, inelastic, brittle, readily liable to undergo laceration. This accident causes the irregular linear perforations occasionally seen. I do not stop to speak of the rupture of large abscesses, or of abscesses in the wall of the gall-bladder, or of rupture of the spleen. These catastrophes give rise to the large extravasation of foreign matters into the peritoneal cavity.

What have we in this second group of cases? Not only an entirely different pathological condition, but also a different clinical picture from that presented by the first group. The evidences of active peritoneal inflammation, chill with high temperature, vomiting, and other well-recognized symptoms, may be absent, the condition manifesting itself simply by the occurrence of profound and intractable collapse. Indeed, sudden collapse is the striking feature in the picture presented by the second group of cases. This collapse in many instances points to such a shock to the nervous system as will terminate fatally in the course of a few hours: such a shock as would be produced by a penetrating gunshot-wound of the abdomen.

This leads me to the point which I have had in mind in bringing the report of this case before you. I take it for granted that almost every case of free extravasation of intestinal contents, however small in amount, into the peritoneal cavity terminates fatally. There is little reason to believe that any case of this kind recovers. It is important to note that the cases of peritonitis in enteric fever in which recovery is possible can be clinically distinguished from those which will terminate rapidly in death. The clinical picture of the two conditions is almost as distinct as

are the pathological lesions. Where there is extravasation of the intestinal contents into the peritoneal cavity, the collapse is like that caused by the escape of an amount of foreign matter the result of a perforating gunshot-wound of the intestine. The proposition which I submit for discussion arises directly from a consideration of the matter in this way. Until within a few years, no surgeon realized the possibility of treating cases of gunshot-injury of the abdomen with perforation of the intestine and the escape of blood and fecal matter by the operation of laparotomy, washing out the peritoneal cavity, excising bruised and lacerated portions of the intestine and bringing the parts together by suture. Yet this is now the recognized procedure in such cases, and has been of late practised in many instances with success in cases that under the old plan of opium and expectancy would have inevitably perished.

Are we ready to adopt the same measures in perforation of the intestine with similar conditions as regards the peritoneal cavity and a like helplessness as regards cure by opium and expectancy in our cases of enteric fever? Recognizing the two groups of cases I have described, and being, as we are, able to refer almost all cases to either one or the other of them within a few hours of the development of the symptoms, are we prepared to decide—and to do so with the necessary promptness—upon those operative procedures by which alone in the second group the life of the patient may be saved?

Granted that the chances of a successful issue are heavily against you; that the patient is in the midst or at the end of a long sickness; that his tissues are in the worst state to stand the injuries of the surgeon's knife; that the lesions of the gut may be very extensive; that the vital forces are at the lowest ebb. No one yet has hesitated to perform tracheotomy in the laryngeal complications of enteric fever, which require it to save life, for these reasons. The operative treatment of purulent peritonitis has been performed many times successfully by the gynecologist in conditions scarcely less unpromising. In point of fact, the objections that may be urged against laparotomy in intestinal perforation in enteric fever are no more forcible than those which would have been made use of at first against the same operation in gunshot-wounds of the abdomen.

Unfortunately, this question is not to be settled by experiments upon animals. The investigation must be made upon the human subject. The courage to perform it will come of the knowledge that the only alternative is the patient's death. Certainly *a priori* reasoning will not help us. We must not, however, overlook the fact that while a few cases of perforation occur in the second week of the disease, while the infective process has yet some time to run, a far larger proportion take place in the period of convalescence, when the condition of the patient, except for a deep ulceration often single, is tending towards recovery.

DESTRUCTION OF NIGHT-SOIL AND GARBAGE BY FIRE.*

BY GEORGE BAIRD, M.D.,

Wheeling, West Virginia.

TO provide an efficient way of disposing of the night-soil and garbage of cities and towns has been a subject of much thought on the part of sanitarians for many years. Convinced that special contagious and infectious diseases are propagated, and that many diseases are disseminated, by pollution of the air and drinking-water, their energies have been directed to the providing of a plan for thoroughly protecting cities from the dangers resulting therefrom. With others, our health authorities for several years have been trying to devise a plan for so disposing of these substances as to protect our own people as well as the citizens of Bellaire, Ohio.

To make this understood, and at the same time furnish an example of the folly of claiming, as some do, that a running stream of water will purify itself in a few score feet, let us here give the relative situation of the two cities.

Wheeling is located on a narrow plain on the east side of the Ohio River, in West Virginia. This plain is bounded on the east by high hills, and on the west by the river. The city extends along the river for five miles. Opposite the extreme southern limit of Wheeling, on the west side of the river, is the northern limit of Bellaire, and that city extends for two miles down the river. About one-half mile from the north end of Bellaire her water-

works are located on the river-bank, and the supply-pipe extends out into the river one hundred feet from the shore at low-water mark. The current in the river is deflected by a bend, commencing a short distance above the southern line of our city, towards the Ohio or Bellaire shore, and substances thrown into the river at Forty-eighth Street—our last street south—are carried over towards the Bellaire side. Especially is this the case during low water in summer.

By one of our ordinances, night-soil men are required to haul all night-soil to Forty-eighth Street, and, after driving as far as possible out into the river, empty the contents of their carts and barrels. The garbage-collectors also empty their garbage into the river at various places along the river-front. From these two practices it results that the drinking-water of Bellaire is abominably polluted, and that city is made a hotbed of disease. In fact, it has the reputation of being the most unhealthy place in Eastern Ohio. For how much of this our city is responsible it is fearful to think; but that a great part of it is due to our way of disposing of the city's refuse matters there can be no doubt.

The furnishing of night-soil to gardeners as a fertilizer has been tried; also the giving of the garbage to dairymen. These plans have resulted in polluted wells and diseased cows. The loading of boats and towing them down below Bellaire has been suggested, and created such great dissatisfaction in towns situated farther down the river that it had to be abandoned.

Determined to relieve our own city of some of the causes of preventable diseases, which were too prevalent among our people, and at the same time relieve her of the injustice she was almost daily doing to her neighbor below, our health department last spring made a series of experiments in the destruction of night-soil and garbage by fire, and we claim that at last we have secured a means of entirely destroying these substances and their power to do evil. The experiments had to be made between late bedtime and morning, as a great prejudice existed in the people's minds to having night-soil burned near their residences.

Two facts about the burning of night-soil specially impressed us: one was that the odor was not such a one as we all

* Read before the American Public Health Association at Toronto, Canada, October 5, 1886.

thought it would be,—it was something akin to the smell of burnt leather; another was the intense heat required to burn it.

The first experiments were made in a bench of five retorts at our city gas-works. The night-soil was mixed with fifty per cent. of fine slack, and three retorts were charged with this mixture. The other two retorts were charged with a mixture of equal parts of night-soil and "breeze,"—fine coke siftings. The reason for adding these substances was to divide the night-soil and provide an inflammable substance within its mass to assist in burning it. The retorts were charged at 11 P.M., and it was not until seven o'clock next morning that the contents were reduced to a fine odorless powder. On another occasion, three retorts were charged with a mixture of twenty per cent. of fine coke and eighty per cent. of night-soil, and two with night-soil alone. The result was the same as before with the mixed charge: nine hours were required to burn the unmixed.

Convinced that the retorts were not the proper things for successful combustion of this substance, owing to the want of a free supply of oxygen, it was determined to find a furnace with a strong draught, capable of producing a greater heat than could be obtained in the retorts.

Fortunately, a change made shortly before this time in the process of making nails in our mills provided what was desired. The change from the iron to the steel nail had dispensed with the boiling-furnace, and on application being made to Mr. Reister, manager of one of our iron-mills, for the use of one of these furnaces, the privilege was cheerfully granted, and by his order it was prepared for the third experiment. After twenty-four hours' heating, a charge of twenty per cent. fine slack and eighty per cent. night-soil was made, and it was burned in one hour and twenty minutes. A second charge of "breeze" and night-soil was made, and it was burned in little more than one hour. A third charge of night-soil alone was made, and it was burned in about the same time as the first charge.

Another change in the mills arising from the introduction of the steel nail was the building of the Smith gas-furnace for the heating of the steel slabs preparatory to being rolled into nail-plate. This furnace is much larger than the boiling-furnace, and capable of generating a more intense

heat than any furnace known. Application was made for the use of one of these furnaces, and it was kindly granted. The result of this experiment was as follows: a barrel of ordinary garbage, or slop, was burned in four minutes; a barrel of butcher's offal (bones and animal matter) was burned in seven minutes; a barrel of fluid night-soil (thrown into the furnace with buckets) was almost instantly evaporated; and a barrel of solid fæces was burned in fifteen minutes.

Convinced that this furnace had every requisite for fulfilling the design of destroying night-soil and garbage, the Committee on Health reported the result of the above experiments to Council, and recommended the making of a contract with Mr. Smith for the building of a furnace capable of destroying daily sixty tons of night-soil and garbage, and also for burning dead animals of all kinds which might die within the city limits, as well as the refuse matter from our butcher-shops. This furnace is to be constructed for using natural gas as a fuel. Of its success there can be no doubt.

The heating capacity of natural gas is more than four times as great as that of coal. With coal, we destroyed night-soil in a boiling-furnace in one and one-quarter hours; with artificial gas, generated from fine slack, we burned it in fifteen minutes; with natural gas we can do still better. Notwithstanding the great difficulty in destroying this substance by fire, there is in the use of natural gas as a fuel more risk of destroying the furnace than of not entirely consuming the night-soil.

It must not be understood that this furnace can only be used in cities and towns where natural gas has been introduced as a fuel. Mr. Smith has gas-generators built with his furnaces in cities where there is no natural gas, and claims that he can "produce a heat of greater intensity and with more economy than by any other method or from any other source outside of natural gas, and as cheap as natural gas can be supplied by a private company."

The fine coal, or slack, is not the only substance from which artificial gas can be generated. Tan-bark, peat, and many other substances can be used. It is much regretted by us that this furnace will not be completed before the meeting of the Public Health Association in October. It would be a great satisfaction to be able to

report its successful workings to this body. Mr. Smith's faith in its success is so strong that he has agreed with our city to ask no compensation until by a series of successful experiments he has shown its capacity to destroy all substances proper to be offered as tests of its powers.

Should any member of the Public Health Association feel sufficient interest in the subject of the destruction of city refuse by fire to wish to obtain more information in reference to the Smith furnace, if he will address M. V. Smith, M. E. Bissell's Block, Pittsburg, Pennsylvania, he will be furnished full details. Mr. Smith being the inventor and patentee of the furnace, we do not feel at liberty to attempt a description of his furnace, and have only tried to furnish proof of its capacity to solve a long-tried problem in the government of our cities and large towns.

ECHINOCOCCUS OF THE LIVER.

BY CHARLES BAUER, M.D.,

Late Chief Assistant Physician to the Out-Patient Department of the Hospital of the Jefferson Medical College.

SO few cases of hydatids of the liver are reported in our journals that it may not be uninteresting to report one which came under my observation while physician to the Out-Patient Department of the Hospital of the Jefferson Medical College.

The patient, I. Z., a German, came to the hospital November 23, 1885, and gave the following history:

He was 35 years old, married, a shoemaker by occupation, and had come to this country in 1881. He had been and was then in good general health, with no history of inherited or specific disease. Three months later his wife noticed a slight prominence upon the right side of his chest, below the nipple. This gradually increased in size, causing no pain, for nearly a year and a half, when he became jaundiced and experienced a feeling of weight and dragging in the right hypochondrium, shortness of breath, and slight cough. Consulting a physician, he was told that he had enlargement of the liver. The treatment instituted had no effect upon the steadily increasing tumor; his appetite failed, he began to lose flesh, and he became progressively anæmic.

Examination now revealed an enormously distended abdomen, the liver-dulness extending from the second rib to a little below the umbilicus, and transversely to within half an inch of anterior border of the spleen. The outline of the mass was irregular, and the

lower portion nodulated. Abdominal veins were enlarged (caput Medusæ). There was œdema of legs extending to the thighs, with pitting on pressure. Spleen enlarged. Both sounds of the heart were distinct, but the first was short and valvular and lacking in power. The area of cardiac dulness was not increased.

The patient looked pale. He stated that he had lost considerable flesh. His appetite at the time was fair, and digestion tolerably good. He had never vomited nor passed blood by stool. After exertion he had much dyspnoea, and he also had a slight cough.

Urine was of sp. gr. 1020, rather dark, feebly acid, and contained albumen and casts. These, examined under the microscope, were found to take the amyloid stain.

Notwithstanding the character of the tube-casts and the enlargement of spleen, usually considered characteristic of amyloid disease, and in spite of the fact that the tumor appeared irregular and nodulated and that the man had lost considerable flesh (conditions that would point to carcinoma), I was led to make the diagnosis of hydatid disease for the following reasons: the patient's age; the almost painless growth of the tumor; the comparative absence of constitutional disturbance during eighteen months from the time it was first observed; the duration of the case, and from a personal observation of the man's surroundings, which were of the most humble character. He with his family occupied two rooms, one used as a bedroom, the other serving as kitchen, sitting- and dining-room, and workshop. Like most poor people, they kept dogs and cats, which, as I afterwards ascertained, often shared the bed with them. Food and water were left about the room in a most careless manner.

The patient was ordered thirty-drop doses of the syrup of the iodide of iron thrice daily, which seemed to improve his condition so markedly that the correctness of my diagnosis was much questioned. Four months later I was called to his house (he had taken no medicine for six weeks). He complained of severe pain in his right side; his legs were greatly swollen; his breathing was difficult; the heart's action disturbed and feeble; and there was anorexia and scanty micturition. His temperature was 99.4°. I gave him a hypodermic injection of one-fourth of a grain of morphine with $\frac{1}{10}$ of atropine, to relieve pain, and ordered him infusion of

digitalis with acetate of potassium in elixir of cinchona. Evening doses of one-fourth grain of morphine were necessary to relieve pain and secure rest. In about five days (during which his temperature was normal) he was so far better that I desired him to come to the hospital again for further treatment. At his next visit I determined to puncture the tumor with a long hypodermic needle, to obtain, if possible, some of the fluid found in hydatid cysts. Fortunately, Drs. Allis and Longstreth were present. The characteristic "purring tremor" was distinctly elicited by palpation. Some fluid was also obtained, but failed to show any hooklets or tæniæ under the microscope. The puncture gave rise to considerable pain, and the patient remained in the hospital from April 26 until May 4, 1886, during which time several unsuccessful attempts to aspirate the cyst were made.

A few days after leaving the hospital he sent for me again: he was then suffering with localized peritonitis, and I continued to attend him until his death from exhaustion, which occurred June 25 of this year, nearly four years after the tumor was first noticed.

Pathological Report.—The post-mortem examination was made by Dr. Rively about twenty-four hours after death. Cadaveric rigidity was present; emaciation not very marked; oedema of lower extremities with ascites was observed. On section we found but little fat. The abdominal veins seemed dilated.

The right lung presented old adhesions at the apex posteriorly. The adjacent pleural surfaces of the left lung were firmly adherent. The right lung was much compressed by the enlarged liver extending up to the second rib.

The pericardium contained about one ounce of fluid. The left side of heart fully contracted. There was fluid blood and a recent clot in right ventricle. The valves seemed normal.

Spleen much enlarged, weighing thirteen ounces. Kidneys, with the exception that the left seemed somewhat larger than usual, exhibited nothing abnormal.

The liver extended to second rib on the right side; its upper portion smooth, but its lower nodulated. The upper part of the right side was adherent posteriorly, and also adherent to the diaphragm. The gall-bladder contained fluid.

From the upper surface of the right lobe of the liver the large cyst projected. The weight of the liver before rupture of the cyst was fifteen pounds six ounces. Upon evacuation, the cyst was found to contain one hundred and forty-eight ounces of a clear, opalescent, slightly alkaline fluid, of the specific gravity of 1008, with no trace of albumen. Within the great cyst was a small one about the size of a marble. Upon submitting the fluid to microscopical examination we found it to contain the tænia echinococcus and hooklets in large numbers. We also examined microscopically a section taken from the substance of the liver, and found the fibrous tissue between the lobules thickened and increased. This increase of fibrous tissue explains the nodulated condition of the liver, a certain amount of interstitial hepatitis having taken place.

1949 N. THIRTEENTH STREET, PHILADELPHIA.

THE USE OF DIGITALIS IN COMBINATION WITH BROMIDES IN EPILEPSY.

BY GEORGE A. WIGGINS, M.D., L.M.

COGNIZANT as we are of the enormous extent of the literature already in existence, almost the first impulse would be to say that the subject of epilepsy had been exhausted; but, on the contrary, it seems as if the more we read of it the more interesting it becomes.

Herewith I submit for consideration the history of two cases and their treatment, which I think are sufficiently interesting to be placed upon record.

Case I.—Mrs. W., Dublin, Ireland, aged 38 years, a widow, the mother of five children, the youngest of whom was nine years of age. Patient was anæmic and emaciated, though formerly robust and healthy. Family history did not indicate epilepsy, insanity, or any other nervous disease, and the suspicion of syphilitic infection was entirely out of the question. Some months after the birth of her youngest child she was seized with epileptic fits, which were very severe and of frequent occurrence. She was attended by four eminent physicians of the city of Dublin with indifferent success, excepting one, who succeeded in checking their frequent occurrence; but still they occurred in decreased numbers until December, 1883.

I first saw her at this time, in a genuine convulsion, after she had fallen down-stairs

and defaced her countenance to a great extent; her tongue was greatly mangled, and "was much inflamed and swollen for some days after." The mouth was foaming vigorously, the face was very much convulsed and contorted, and the limbs worked violently. Consciousness was delayed for a lengthened period. When consciousness did return, I gave her fifteen grains each of potass. brom. and hydrate of chloral, which seemed to have no beneficial effect, the patient being extremely restless and nervous all the night.

Next morning I gave her the following prescription:

R Potassii iodidi, ℥j;
Potassii bromidi, ℥j;
Ammonii bromidi, ℥iiss;
Potassii bicarbonatis, ℥ij;
Spiritus chloroformi, f℥ij;
Infusi digitalis, q. s. ad f℥vj. M.

Fiat mist. Sig.—Take two teaspoonfuls morning and noon, and three at bedtime.

After one week she took only one teaspoonful morning and noon, and three at bedtime.

The patient recovered completely, never having another fit; but in the beginning of her treatment she had some tendency to have them by the occurrence of the aura in one or other of her arms. These, however, were presumably prevented by tightly bandaging the arm with a handkerchief when this valuable precursor manifested itself.

Case II.—Master T., a boy of 15 years, from Plainfield, New Jersey. He was so large, plethoric, and healthy-looking that he seemed developed altogether out of proportion to his age. As in the first case, the family history as far as I could ascertain was altogether free from any diathetic taint. The mother told me she was only trying my professional skill as an experiment; human aid in the case was impossible, she thought, as already she had engaged the services of several physicians and numerous quacks, from the Indian medicine-man down to the faith-cure. The boy had an enormous appetite, and, having an indulgent father and mother, he was allowed to eat very irregularly, and in fact gluttonously. (This, by the way, was always a very good platform for the quacks, for they invariably cried "Worms!" when they heard of his eating capacity.) His bowels were costive, as might be expected from his gormandizing. The fits were congenital, and had occurred very frequently in this case; so much so that the mother could hardly ever trust him out of her supervision. She told me that he had, as the rule, from three to six fits daily, and occasionally as many as a dozen in the twenty-four hours.

I put him on the same prescription as the

first case, with the following as a tonic laxative for his bowels:

R Extractæ cascaræ sagradæ fl., f℥ij;
Tincturæ nucis vomicæ, f℥iiss;
Aquæ, q. s. ad f℥ij. M.

Fiat mist. Sig.—Take one teaspoonful after each meal.

The boy got perfectly well, his recovery dating from the second day of his taking the medicine, he having had one the day before.

In conclusion, here seem to be two cases of opposite conditions,—the one anæmic, the other plethoric.

The question is naturally asked, "To what was the cure due?" "Undoubtedly," some might say, "to Brown-Séquard's prescription,—which it really is, except that the infusion of digitalis is substituted for infusion of columbo." To this I must answer "No," as I happened to ask Dr. Nicolls afterwards what his treatment had been in the first case, and he told me it was Brown-Séquard's mixture exactly. In the second case bromides had been prescribed *ad libitum*, but the number of fits remained the same except when the drug was pushed to its full physiological action.

What I particularly wish to have noticed is the treatment of epilepsy with digitalis. This treatment is not original, as Sir Dominic Corrigan, Bart., used it in Dublin with very great success, although he preferred the powder. The effect produced on delirium tremens by large doses of digitalis, demonstrated by Jones, is truly wonderful, and proves it to be a most potent sedative in some conditions of the nervous system.

Probably digitalis, in conjunction with Brown-Séquard's prescription, is worthy of careful consideration and trial in a disease which sometimes requires all our resources to control.

SURGICAL INSTITUTE, PHILADELPHIA.

DEATH DUE TO HEMORRHAGES CAUSED BY FOREIGN BODY IN THE BRONCHI.—Dr. Axel Key reports (*Hygieia*) the case of a man, 36 years of age, who died with pulmonary hemorrhage, to which he had been subject for seventeen years. Upon section, six pine leaves, stiff and with sharp points, were found projecting from the mucous membrane of a dilatation of a bronchus in the left lung. The embedding of the leaves in the lung had led, in the opinion of Dr. Key, to the hemorrhages and fatal result.

NOTES OF HOSPITAL PRACTICE.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

SERVICE OF WILLIAM OSLER, M.D.,

Professor of Clinical Medicine.

(Reported by WILLIAM H. MORRISON, M.D.)

CLINICAL REMARKS UPON A CASE OF ANEURISM OF THE ARCH OF THE AORTA.

GENTLEMEN,—The case which I shall demonstrate this morning is one which I have just seen for the first time, but it is one in which the diagnosis can be made upon a very superficial inspection. For the past twenty years this man has been working as a cabinet-maker; previously he had been a shoemaker. He has never had any sickness, with the exception of chills and fever, which he had when twenty-one years old. He has never had rheumatism or syphilis. He noticed the first signs of the present affection six years ago, when he had a trouble with the heart which he describes as a feeling of beating and jarring when he lay down. He did not have shortness of breath, and was able to continue his work. About two years ago he had a sharp pain to the right of the sternum. His principal complaints now are shortness of breath and nervousness, with occasional pain over the upper part of the right chest.

He presents a healthy appearance, and is young-looking for his age,—46. The vessels of the face, especially the veins, swell rapidly on exertion. If he walks a short distance the face flushes. The pupils are of medium size and equal. There is no difference in the color of the sides of the face. The vessels of the neck are not specially full, although the external jugular veins are evident; there is no special throbbing in the neck; there is a little increased fullness below the right sterno-mastoid muscle. There are several distinct superficial veins crossing the sterno-clavicular articulation.

Inspection shows a fairly well developed thorax; expansion slight and chiefly in the lower costal region. There is marked dilatation of the venules about the costal margin, particularly at the ensiform cartilage. A few of these venules are noticeable on each side of the sternum. The apex-beat of the heart is visible about one inch below and two inches outside of the line of the nipple; the beat is forcible;

the cardiac impulse is also noticed in the angle between the costal margin and the ensiform cartilage. What attracts particular attention is a hemispherical prominence on the right side of the chest, immediately below the first rib.

Upon careful inspection of this a slight heaving pulsation is seen, but it is not very noticeable. It is difficult to determine by inspection whether or not this pulsation is synchronous with that of the apex-beat.

Upon palpation, the pulsation is very distinct and expansile. In this manner I determine that its rhythm is systolic. There is no distinct interval between the cardiac impulse and the pulsation of the mass. The sensation communicated to the hand is that of a firm, solid body. The tumor evidently projects through the ribs and costal cartilage. Its limits can be accurately fixed by palpation; it extends from the first rib above to the third rib below. A portion of the third rib and its cartilage can be distinctly felt; the second cannot be felt. Laterally it extends to the right edge of the sternum, not involving the bone directly. Its outer limit can be fixed with great distinctness; its edge is very sharply defined. At present the swelling does not appear to be painful, although the patient states that there has been considerable tenderness at times. As I have said, there is communicated to the hand a distinct impulse, systolic in time. Following this is a diastolic shock, and with it a very slight tremor or thrill.

Upon percussion, there is dulness over the whole region of the tumor, and extending over the left half of the median portion of the sternum, but not involving the manubrium; its lower limit merges into the cardiac dulness.

Upon auscultation, there can be heard a very distinct long blowing sound or murmur occurring at the same time as the pulsation, and following it is the flapping second sound. As the heart is approached the systolic murmur becomes more distinct, and at the third left costal cartilage there is heard a second murmur, diastolic in time and very distinct in the mid-sternal region and towards the ensiform cartilage. As we have already noted, the apex-beat is very much dislocated from its normal position. It is felt in the sixth intercostal space, at least two inches outside of the nipple-line. Auscultation of the heart shows a systolic murmur heard best at the apex, but not

transmitted into the axilla. The pulse is quiet, at present 92 in the minute. Comparing the pulse in the two radial arteries, that in the left seems fuller and more distinct than that in the right. This is still more evident when the brachial arteries are compared. Auscultation of the lungs posteriorly shows no apparent difference in the respiratory murmur of the two sides. On attentive auscultation there can be heard in the right scapular region a murmur which is doubtless transmitted from the tumor.

The nature of this malady is evident. The man has an aneurism of the aorta. The diagnosis in this case is unusually easy: you cannot always with such positiveness assert that you are dealing with aneurism. When, however, there is a tumor projecting to the extent that this does, with this peculiar expansile pulsation, it is almost certainly an aneurism. If we divide the arch of the aorta into its three portions,—the ascending, transverse, and descending portions,—it will be found that in the majority of cases the aneurism springs from the ascending portion: that is, between the aortic orifice and a point a little to the right of the origin of the innominate artery. This is the position which the aneurism occupies in this case. The ascending portion of the vessel is most prone to atheroma; and this explains why it is that aneurism is so common in this situation. Aneurisms involving this part of the vessel project anteriorly and to the right, in the direction of least resistance. The vessel having more room to expand, we find here the largest aneurisms. The most important structures in contact with the ascending portion of the arch of the aorta are the pulmonary artery and superior vena cava; the latter is particularly liable to be pressed upon, but we rarely see such serious effects of pressure here as we do in aneurisms affecting the transverse or descending portions of the arch. In this instance the aneurism has eroded the second rib and caused its entire absorption. Separating the sac from the outside there is simply the skin, and numerous firm, hard coagula which line the sac and obviate to a certain extent the effects of the blood-pressure.

The chief symptoms from which the man now suffers are shortness of breath and occasional pain. At present the pain is not at all severe, but he states that a few months ago the pain and tenderness were excessive.

This was due to the erosion of the ribs, and it is very marked when an aneurism projects still more posteriorly and erodes the vertebræ. After the bone has become absorbed and the aneurism is in contact with the skin, as in this instance, the pain may be materially diminished. Pressure upon the nerves in the neighborhood of the heart may produce attacks of agonizing pain resembling angina, and in many cases it passes down the arms and along the cervical nerves. The dyspnoea at present is not noticeable when he is quiet, but when he moves rapidly or goes up-stairs there is shortness of breath and cardiac distress. This is due in part, I think, to the existing valvular disease, as the loud diastolic murmur down the sternum indicates that the valves are not competent.

Curative treatment is almost out of the question in an internal aneurism when it has reached such a size as this one. Occasionally, by the introduction of horse-hair or a large coil of copper wire, or by electrolysis, the contents of the sac have been solidified and cure has been effected. Such treatment, however, is, I think, out of the question where the tumor is already so near the surface.

The treatment of such a case resolves itself into a matter first of rest, secondly of diet, and thirdly of the administration of one or two medicines which have been found of service. Rest is unquestionably the most important element in the treatment of internal aneurism. The pulse, which is one hundred per minute while the patient is sitting up, will be reduced fifteen or twenty beats when he assumes the recumbent position. Any one can calculate the number of pulsations saved in twenty-four hours. The sac will thus be directly spared many thousands of pulsations. It is this that makes rest so important in the treatment of internal aneurisms. Rest will reduce the pressure within the sac to a greater extent than could possibly be done by any medicine or arterial sedative.

The next point is with reference to the diet. One of the most successful methods of treatment of aneurism ever employed is that by restriction of the diet. This was introduced by Valsalva, and modified by Tuffnell, of Dublin, who placed his patients upon a diet consisting of not more than eight ounces of solids and ten ounces of liquids in the twenty-four hours.

A couple of ounces of solid food with milk or tea were given in the morning, a larger quantity in the middle of the day, and a couple of ounces again in the evening. The restriction of fluids is particularly important. This unquestionably reduces the quantity of blood in circulation, and has an important bearing in diminishing the blood-pressure.

Of medicines, iodide of potassium is the only one which in my experience has proved at all efficacious in the treatment of aneurism. The relief is usually evident in two special directions,—relief of pain and reduction of the pulsations. Undoubtedly, under the use of iodide of potassium in fifteen-, twenty-, or thirty-grain doses three times a day, the pain is greatly relieved, and may disappear altogether. The pulsation becomes less forcible, and the sac may get much harder. The pulsation in this case has been greater than it is at present, and for some time he has been taking iodide of potassium in fifteen-grain doses.

There is an interesting etiological question in connection with this case. This man is a carpenter by occupation, and it has been noted that the workers in certain trades are particularly subject to arterial and cardiac affections. Carpenters are more liable to such diseases than are other artisans, with the exception perhaps of blacksmiths. In this instance the occupation may have had something to do with the production of the condition. The constant use of the arms brings a great strain upon the aorta, and may induce atheroma, which, in the great majority of cases, is the precursor of aneurism. Of other causes, syphilis is unquestionably the most frequent. There is no reason to think that this man has had syphilis. Rheumatism and gout also frequently attend arterial diseases, but in this case there is no history of such affections.

The prognosis is, of course, very grave. Cases of thoracic aneurism usually terminate within two years; but in the situation which this occupies, owing largely to the fact that no important structures are compressed, an aneurism may persist for many years and the patient enjoy a tolerably comfortable existence. Rupture into the pleura is a common mode of termination in these cases. The sac becomes thin, a little rent takes place, with effusion of blood and sudden death. Compression of the

superior vena cava may lead to extreme congestion of the brain and to clotting in the sinuses, which proves fatal. Occasionally the aneurismal sac ruptures externally, and may bleed for some time before the fatal result takes place. I have seen an instance of large protruding aneurism in this region in which the patient wore with much relief a soft elastic strapping; but in this case the slightest pressure seems to worry him, and it would here do more harm than good.

CIRRHOSIS OF THE LIVER WITH FATTY DEGENERATION AND ENLARGEMENT OF THE ORGAN.

I wish briefly to refer to this liver, which was removed from a patient who died in the hospital the day before yesterday. The condensed notes of the case are as follows. T. E., a married woman, the wife of a saloon-keeper, was admitted to the hospital eight days ago, with dropsy and jaundice. She had used both whiskey and beer to excess. She stated that her present illness was of only three weeks' duration, and that it had begun with swelling of the abdomen and feet. She also complained of a cough, which had been present for a couple of months. Examination on admission showed the patient to be weak and anæmic; the eyes were jaundiced, and the skin presented a slightly yellow tint; there was great shortness of breath. The abdomen was distended, measuring thirty inches in circumference, and the umbilicus protruded. The veins over the surface of the abdomen were slightly enlarged. The liver-dulness extended in the nipple-line from the upper border of the fourth rib to one and one-half inches below the costal margin. The left lobe extended at least two and one-half inches below the ensiform cartilage. There was also slight enlargement of the spleen. Diarrhoea was present, and the temperature was elevated one or two degrees. Signs of congestion were present over the posterior part of both lungs posteriorly. The pulse was very rapid, and at night there was delirium. The patient evidently was failing rapidly, and, in order to relieve the oppression of breathing, about eighty ounces of fluid were removed, with apparent relief. She, however, continued to sink, and, as I have said, died the day before yesterday.

I wish to call your attention to the liver, which, as you see, is large and of a yellow

color, the color being largely due to the presence of fat. Upon the surface the organ is slightly rough and granular. To the touch it is firm and hard. The fingernail can scarcely be forced into its substance. In the normal liver this can be readily done. On making a section of the organ, we find that it cuts with great resistance. The lobules show three distinct zones: first, a central region of a brownish color; secondly, a yellowish zone; and, thirdly, an outer zone of a grayish, translucent appearance, separating the lobules. On careful inspection, it is evident that the liver is the seat of extensive fibroid change. The lobules are surrounded with a new growth of connective tissue, which in places is quite marked, having in some portions completely destroyed the lobules. I call particular attention to this specimen because it is an instance of cirrhosis with enlargement, the increase in volume being due in great part to the fatty change. Fatty cirrhosis has been designated as a special variety by French writers, but the advisability of such classification is, I think, doubtful. It is not at all uncommon.

An interesting point in the clinical history is the sudden onset of the dropsy. Three weeks before her death this woman was in her usual state of health. In cirrhosis of the liver it is not common to have the fatal termination follow so rapidly the appearance of the first serious symptom, particularly if this is ascites. Hæmatemesis, however, may carry off a patient with great suddenness and be the first manifestation of the disease.

JEFFERSON MEDICAL COLLEGE.

SERVICE OF JOSEPH HEARN, M.D.,

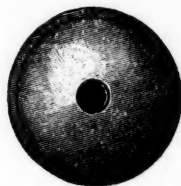
One of the Attending Surgeons to the Hospital of the Jefferson Medical College.

(Reported by W. M. LATE COPLIN, Resident Physician.)

TWO CASES OF IMPACTION OF TOY WHISTLES IN THE ŒSOPHAGUS.

BY reference to the accompanying cut (made the actual size), an idea may be formed of a toy likely to prove a rival to the toy pistol and similar inventions for the destruction of children. This apparently innocent toy is held between the lips and teeth, and apparently much amusement wrung from it by its boyish possessor by the noise made by blowing through it. The child carelessly carries the whistle in his mouth as he runs about, and upon making some sudden exclamation the

toy drops back and falls into the Œsophagus, where it lodges. Two cases have recently presented themselves at the Jeffer-



son Hospital which may be of interest. In the first case the child was 4 years old; had been playing with the toy, and as a result swallowed it. The usual symptoms of obstruction in the Œsophagus supervened, and the little patient was brought to the out-patient department for examination. An anæsthetic was administered in order perfectly to relax the parts, and the surgeon, Dr. Hearn, passed into the Œsophagus a bucket-probang or coin-catcher, forcing it gently past the foreign body, then, slowly withdrawing, brought up the whistle, which had been caught by the firm contraction of the Œsophagus.

The second case did not differ materially from the first, the whistle being in each instance exactly similar to the one shown in the cut. In both cases the child was held in the lap of an assistant, its jaws held firmly apart by an instrument for the purpose, and in neither case did the manipulation extend over a period longer than five minutes. Dr. Hearn considers the bucket-probang or coin-catcher one of the most valuable instruments we possess for the removal of foreign bodies from the Œsophagus.

An interesting point in connection with these cases is that they both occurred in the practice of one surgeon within the same week.

TRANSLATIONS.

MORBID ANATOMY OF HYSTERIA.—In the course of remarks upon the normal and pathological anatomy of the nerve-centres, at the Académie de Médecine, M. Luys directed attention to a specimen of a brain taken from an hysterical subject. He demonstrated anatomical peculiarities in this brain which had hitherto not been noticed. The morphological irregularity ex-

isted principally in the left hemisphere, where, at the level of the upper part of the fissure of Rolando, there was an abnormality which he himself had never seen before, consisting of a supplementary convolution coming from the centrum ovale and interjected between the extremity of the ascending parietal (which it pushed backward) and that of the ascending frontal (which it pushed forward). In the same lobe there was observed a decided thickening at the base of the ascending parietal, with multiple flexuosities. The right hemisphere was not similarly invaded, but the ascending frontal appeared broken in its continuity, forming a rare condition, such as is usually to be found in cases of chronic mania with hallucinations. Besides other features of secondary importance, he remarked the condition of extreme development of the quadrate lobes of each side. As some authors regard these regions as the proper territories of sensibility and psychic emotivity, this fact is important to note, as well as the projection of the paracentral regions, which also coincides with certain forms of cerebral excitation of which M. Luys had encountered several interesting examples.

He observed, in concluding his paper, that "it is seen, therefore, by this plain fact, that if hysteria is to be considered as a protean combination of original dynamic disorders, these dynamic symptoms alone do not constitute the disease. They reveal an underlying organic disorder,—a cerebral condition which is often inherited and fatally inherent to the subject, and which is the real characteristic of the bent of his mind and of the nervous manifestations of all sorts that it presents in its evolution, and which he cannot prevent. He is born hysterical, he lives hysterical, and he dies hysterical." The autopsies which he had made upon this subject at La Salpêtrière did not admit of doubt upon the subject in his mind.—*La France Médicale*, No. 116.

THE GASTRIC JUICE IN ACUTE PHOSPHORUS-POISONING AND IN PYREXIA.—As the result of some experiments upon the gastric juice, Drs. Cahn and Von Mering declare that "the most severe diseases of the stomach are not capable of causing the disappearance of hydrochloric acid from the gastric juice." It appears that the formation of this acid is one of the most

persistent functions of the organism. Phosphorus causes such marked degeneration of the mucous membrane and of the peptic glands that Dr. Cahn was induced to make some examination of the gastric juice of dogs after death from phosphorus-poisoning in order to ascertain if this condition might not prove an exception. It was found that hydrochloric acid was still secreted in quantity sufficient for gastric digestion, in spite of the extensive degeneration of the walls of the stomach and glandular organs. Incidentally, an interesting fact was noted, that as one of the results of phosphorus-poisoning sarco-lactic acid appeared in the gastric juice, probably due to the increased acidity of the blood. So far as is known, phosphorus-poisoning is the only case in which any other acid than hydrochloric acid is secreted in the stomach. The author concludes, if the extensive degeneration caused by phosphorus-poisoning is not capable of making the hydrochloric acid disappear from the glandular secretion of the stomach, that the gradual and less marked changes which accompany fever are certainly not capable of doing so. The view expressed by Klebs—that the early and marked digestive disturbances which accompany all fever processes are due to the absence or diminution of the hydrochloric acid—must therefore be renounced.—*Zeitschrift für Physiologische Chemie*, Bd. x. H. 6.

RESORCIN IN SKIN-DISEASES.—Dr. Wiss (*Les Nouveaux Remèdes*), having experienced great relief in his own person, while suffering with eczema of the hands, from resorcin, has used it in a number of cases with marked advantage. He employs it in the following forms: (1) in powder associated with talc or rice (one part to ten); (2) in solution with oil of sweet almonds and olive oil (of each three grammes, resorcin one to two grammes), or with glycerin (twenty per cent.); and (3) as an ointment combined with vaseline (one or two parts to twenty).

TO REMOVE STAINS OF IODINE FROM THE SKIN.—The sulphide of sodium, or sodium sulphydrate, in a ten- or twenty-per-cent. watery solution, applied upon a compress, will remove the stain of iodine, as well as allay its irritant action when excessive.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, DECEMBER 11, 1886.

EDITORIAL.

RHEUMATISM AND RHEUMATOID
AFFECTIONS.

THE indefiniteness of our conceptions concerning rheumatism was the theme of an interesting discourse by Professor Immermann at the recent meeting of the German Association of Naturalists and Physicians. Immermann regards the morbid process characterized by the classical phenomena of fever, articular inflammation, and peri- or endo-carditis as an infectious disease. A number of other less characteristic affections may be included under the adjective "rheumatic." Among these is acute endocarditis without joint-affections. In these cases a recurrence is sometimes accompanied by joint-inflammation, showing that the former attack was also rheumatic, although one of the most pathognomonic manifestations was absent. Acute sero-fibrinous pericarditis is also sometimes seen, in which, in spite of the absence of other symptoms, rheumatism may be diagnosticated. The presence of valvular lesions of the left heart in such cases, indicating preceding endocardial inflammation, is an almost certain evidence of the rheumatic nature of the attack.

Certain forms of what Immermann terms *masked rheumatism* may also be often recognized. One of the most frequent of these is neuralgia, most frequent in the trifacial and sciatic nerves. They may be accompanied or not by fever. They occur in persons who have previously suffered from classical rheumatic attacks, or are accompanied by endocarditis or followed by joint-inflammation.

A peculiar form of masked rheumatism is the *spastic*. Contraction or stiffness of muscles, especially of those in the area of distribution of the spinal accessory nerve, comes on suddenly, accompanied by fever and pain in the affected muscles. The stiffness of the neck-muscles may simulate an attack of cerebro-spinal meningitis. The absence of an epidemic of the latter disease and the prevalence of rheumatism at the time will help in making a diagnosis. Salicyl compounds and antipyrin are specific in their influence upon true rheumatism, and may be used as diagnostic aids, just as the iodides are sometimes relied upon to make a diagnosis of syphilis.

Gonorrhœal and scarlatinal joint-affections, purpura with joint-complications, the so-called *peliosis* or *purpura rheumatica*, the articular affections in individuals suffering from bronchiectasis, rheumatic tetanus, Landry's paralysis, acute anterior poliomyelitis of adults, sporadic acute polyneuritis, and beriberi, may be for the present classed as *rheumatoid* affections, in order to distinguish them from true rheumatism, from which they differ in clinical history as well as in treatment. The painful affections resulting from "taking cold" should be designated, as suggested by Erb, as "refrigeratory," and not as "rheumatic."

The adoption of Immermann's suggestions would tend to introduce some system in the application of the much-abused terms *rheumatism* and *rheumatic*. We think, however, that, even at present, his class of rheumatoid affections could be reduced in number.

BILLROTH ON MEDICAL EDUCATION.

GREAT perturbation has recently been caused among professional circles in the Austrian capital by a pamphlet of Prof. Billroth upon "Teaching and Study of the Medical Sciences." This is not

the first time that the distinguished Vienna surgeon has employed his pen in this field. Ten years ago his remarkable book, "Ueber das Lehren und Lernen der medicinischen Wissenschaften an den Universitäten der deutschen Nation, nebst allgemeinen Bemerkungen ueber Universitäten," attracted much attention, and by its outspoken criticism gave rise to not a few heartburnings. His later work seems to have created a still greater sensation than his former one. A cursory examination of some of the points touched upon will show that the attention the pamphlet has attracted is not undeserved. Billroth heads his first chapter "The Preparation for the Study of Medicine," and complains that the average German brain is lacking in capacity and training for quick assimilation and reproduction. This he ascribes to defective domestic education and consequent want of a proper sense of duty among the students. Hardly fifteen per cent. of the matriculants attend his lectures at the university. He concludes, therefore, that there is too much liberty allowed to students, and condemns the elective system now in vogue. It is worthy of note that Mr. James Russell Lowell took a similar position in regard to collegiate studies in his address at the recent Harvard celebration.

"Liberty of Teaching and of Study" is the heading of Billroth's second chapter. He thinks that the effects of this liberty have been an enormous increase of students, with diminished attendance on lectures, very ordinary examinations, uncultured physicians, lack of medical men in the country, and overcrowding of the large cities. These complaints do not sound unfamiliar to our American ears. Billroth proposes to diminish these evils by enforcing better attendance on lectures and clinics. Medical students are not competent of judging what degree of attention they should devote to the different branches. The Faculty must prescribe the

studies and insist on compliance with their requirements. In our opinion a little more supervision would benefit students in American colleges as well as those of Vienna.

The Vienna medical school is overcrowded with students, which Billroth thinks is an evil. In this we quite agree, though we believe that American college professors count such an opinion a great heresy. In this country the largest class of students is supposed to indicate the best school,—which by no means follows. Billroth says that the quality of the teachers has but a slight effect upon the number of the students, but a great influence upon the acquirements of the latter. Good teachers and facilities for teaching, and few students, make good doctors. An increase in the number of medical schools in the Austrian empire is advocated, in order to relieve the great pressure on the Vienna university.

Billroth also pays his compliments in no very amiable way to the Faculties. The teachers are declared to be too numerous. At the Vienna school there are nineteen ordinary professors, forty-four extraordinary (or adjunct) professors, and sixty-five docents (tutors), a total of one hundred and twenty-eight. The same condition of things is becoming yearly more prominent in this country. It might be wise if our Faculties paid some heed to the warning of the great surgeon, whose profound study of the problems involved gives his opinions the force of authority.

THE CENTENNIAL CELEBRATION OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA.

A COMMITTEE, consisting of Drs. Alfred Stillé, S. Weir Mitchell, I. Minis Hays, J. Ewing Mears, and S. W. Gross, has been for some time engaged in making preparations for an appropriate celebration of the centennial anniversary of the founding of the College of Physi-

cians of this city. The programme has been arranged as follows:

"1. An address by the President of the College will be given at Association Hall on Monday evening, January 3, 1887, at half-past seven o'clock.

"2. At nine o'clock on the same evening a Reception will be held in the College building. To the Address and the Reception invitations to ladies will be issued by the Committee on request of the Fellows.

"3. On Tuesday, at twelve noon, a meeting of the College will be held at which Honorary Fellowships will be conferred upon distinguished members of the profession.

"4. At half-past six, on Tuesday, the anniversary dinner will be given in the College building.

"5. A loan exhibition of the portraits of Fellows of the College, with those of distinguished members of the profession, will be held; and also

"6. A loan exhibition of rare medical books and rare objects of medical interest."

Fellows of the College are earnestly requested to make contributions of portraits, rare books, and objects of medical interest from their own collections; and their earnest co-operation is desired by the Committee, in order to make the celebration in every way worthy of the occasion.

The College was organized by a number of the representative physicians of Philadelphia on the 2d day of January, 1787, the object in view being "to advance the science of medicine, and thereby to lessen human misery, by investigating the diseases and remedies which are peculiar to our country; by observing the effects of different seasons, climates, and situations upon the human body; by recording the changes that are produced in disease by the progress of agriculture, arts, population, and manners; by searching for medicines in our woods, waters, and the bowels

of the earth; by enlarging our avenues to knowledge from the discoveries and publications of foreign countries; by appointing stated times for literary intercourse and communications; and by cultivating order and uniformity in the practice of physick."

In view of the fact that the anniversary falls on the 2d day of January, Sunday, the conclusion of the address of Dr. John Redman, delivered at the meeting for organization, seems so especially appropriate that we make the extract from the original minutes:

"RESPECTED BRETHREN,—After I had writ the preceding address, my mind took a more serious turn, which I willingly indulged. As the current of my thoughts related to the most substantial good of the Institution, and in a certain degree evidenced the earnestness of my desires to promote it.—Under that view, craving your indulgence a few minutes longer, I will venture to read them as they were hastily written, exactly according to their rise, progress and termination in my own mind; and though the manner in which they were expressed may not bear every kind of criticism; yet I trust the matter of them is such as will give offence to none, but be approved by you all. Especially as the principles and grounds of them are the words of one of the wisest of men: I mean King Solomon in his 3d Chapter of Proverbs, 'Trust in the Lord with all thine heart, and lean not to thy own understanding; In all thy ways acknowledge him, and he shall direct thy paths.' The antiquity of which words I hope will be no objection to them, with medical Gentlemen who acknowledge that some of their oldest authors are equal if not superior to many of the moderns. Be that as it may, They led me to consider That in one place of the Scriptures of truth it's declared (and believed by all who count them authentick and have made them the subject of their Rational attention and serious meditation)—That by the God of Heaven Kings Reign and princes decree Justice; and elsewhere 'That except the Lord build the House, they labour in vain that build it.' 'Except the Lord keep the City, the watchmen waiteth but in vain.'

"Taking these for granted, which I do most heartily, I am Convinced that it highly becomes rational men in all their lawful Enterprises and Undertakings of importance, Especially those which require Wisdom and Judgment, prudence and perseverance, effectually to accomplish them:—To acknowledge God to be their Sovereign Ruler and the Over Ruler of all Events, In Wisdom, Justice, goodness, and Truth; and also to acknowledge their obligations to him for every good they have or do enjoy; as well as their dependence upon him for any good which they still hope for or expect in the prosecution of their affairs publick or private, And for his protection, direction and success therein; and accordingly I invoke his aid, and implore his blessing thereon. Hence it is that I feel it both my duty and inclination, as your oldest member, and especially as your President, and as very becoming us at the Commencement of this our Institution, In your name and in your behalf, To acknowledge the Supreme Being to be our Sovereign Lord and Ruler; And also our obligations to him for every mercy and blessing we have been the subjects of, and especially for giving us capacities for such an Undertaking and Influencing our wills to engage in so good a design at this time. In same manner I

do also acknowledge our Dependence upon him for protection, direction, blessings and success herein: and furthermore I do also in your name and behalf, Invoke his Aid and implore him to grant unto us in this and all our lawfull enterprises, all that Wisdom, Prudence, discretion and Judgment, which are necessary to conduct it in a proper manner, to good effect and usefull purposes;—and also all that grace which may enable us to act herein from right principles, with just motives, to good ends, and according to the best rules and Regulations so that in this and all our works and ways we may glorify God, and do good in our days, and finally That after we have publickly and privately served our Generation faithfully, According to the will of God, we may be fitted for and admitted into his Kingdom and Glory, through Jesus Christ our Lord and Saviour."

The spirit of the founders of the College apparently is not shared by the Committee on the Anniversary Celebration, or such a rare opportunity of formally opening the ceremonies by a religious service on the natal day of the College would not have been so palpably slighted. At least two of the ex-presidents of the College lie buried in St. Peter's, one of the oldest churches of the city, and we learn that the Fellows of the College who wish to attend divine service at this church on the day named will be cordially welcomed. If it is desired by a number of the Fellows it is not yet too late to have this service entered as a part of the programme, and those who wish to attend can do so, and those who may not care for it can stay away.

THE ASSOCIATION OF EX-RESIDENT PHYSICIANS OF THE PENNSYLVANIA HOSPITAL will hold its second annual meeting in the Library of the Hospital December 16, 1886, when a dinner will be served and several interesting addresses made. A number of invited guests are expected to participate, among whom will be the venerable William G. Malin, who was the faithful steward of the Hospital for more than half a century. Dr. Thomas S. K. Morton is the Chairman of the Committee. Acceptances should be sent to the Hospital. A large attendance of the older Residents is especially desired.

NOTES FROM SPECIAL CORRESPONDENTS.

PARIS.

THERAPEUTICS in Paris.—It is rather surprising to an American medical student in Paris to find such a slight interest taken here in therapeutics, as he is accustomed at home to hear full details upon the subject. At the official lectures given by the Professors, about fifty-six minutes are usually taken up in giving the pathology of a disease, and in the few minutes of the hour remaining but little can be said on treatment in the individual case. It is the same at many of the hospitals. The attending physicians will expose the fine points of every case in a most learned manner; but when it comes to the medication they will often fail to say a word about it, leaving it all to the interne to do as he thinks best in regard to it. It must be admitted that there is a wide-spread distrust in Paris in regard to the therapeutic value of drugs.

Professor Hayem, who holds the chair of Therapeutics at the Faculty, is a very good physiologist; his well-known experiments on blood, circulation, etc., are wonderful in their way; but he does not attempt to deliver any set course of lectures on *materia medica* and therapeutics, and during his short spring term he can only touch on a few of the newer therapeutical agents. But it must not be supposed from this that the healing art is entirely neglected in Paris. Quite the contrary; for we have in the doctors attached to the hospitals a large number of excellent practitioners and teachers. There are no distinctions made among this class of medical men; they all have the same title of *Médecin des Hôpitaux*, and each one has charge of a certain number of wards. Among them are many who are not Professors, nor even *Professeurs agrégés* in the sense of having the legal title and being attached to the Faculty of Medicine; but their clinical lectures are even more generally followed than those of the Faculty. M. Péan, the well-known surgeon of the St. Louis Hospital, is one of these men, and in especial connection with our present subject of therapeutics we have M. Dujardin-Beaumetz, of the Cochin Hospital (who is often spoken of as Professor in the United States), one of our shining lights, and he gives every year a valuable series of lectures and experiments on modern medicine.

Another eminent teacher is Dr. Henri Huchard, physician to the Bichat Hospital, who also gives a course of lectures that is elevated in style and eminently interesting. He has had fitted up at the hospital a most convenient and complete therapeutical laboratory, with regard to which he recently publicly made the following statement: "I wish to announce that this laboratory of therapeuti-

cal research is free to all who may be interested in the work. They may have a seat at the desks, and make use of all the ancient and modern medicines in stock for purposes of study without expense. M. Paul Chéron has charge of the biological and chemical department, and M. Charles Eloy of the therapeutical and the pathological anatomy section, and they will both be glad to offer their advice and assistance in experimentation."

We take some extracts from notes of a volume of clinical lectures on medical therapeutics by Dr. Huchard, which will be issued by O. Doin, publisher, early in 1887. The doctor, in speaking of "General Therapeutical Indications," first details four cases of pneumonia in each of which he employed different medication, according to the indications. For one case bleeding was used, with injections of morphine; for another sulphate of quinine in large doses; for the third Todd's potion, with injections of caffeine and urethan; and for the fourth case he put in practice the celebrated answer of Magendie, "Did you ever try doing nothing?"—the expectant system, in fact. He very pertinently asks, "Why this difference in medication in the same disease, or the same morbid state at least? It is because in clinical medicine one should not treat a disease, but the patient; and there are no local maladies, but the malady is localized. Sydenham was right in saying, 'Practice of medicine consists more in knowing true indications than in inventing remedies to fill them.' What is an indication? '*Agendi insinuatio indicatio est*,' Galen said, and we define this to be the therapeutic deduction founded on an examination of the patient and his disease. It results from this that we should take into account the disease, the patient, and the remedy. For the first, search the cause, its lesions, its complications, etc.; for the patient, regard must be had for constitution, temperament, age, sex, physical strength, his surroundings, and especially the season of the year. As to the medicine itself, the question of dose is a most important one, as different effects can be obtained from the same drug according to the method in which it is administered and according to the quantities used. For instance, the cardiac action of digitalis can be obtained with quite small doses, but its antifebrile action is only demonstrated by comparatively large doses. For the modifying and restoring action of arsenic on nutrition it should be given in doses of not more than five milligrammes to one centigramme per day; but in chronic malarial poisoning the dose must be raised to two to five centigrammes in the same period of time. Sulphate of quinine in moderate doses is a most powerful anti-neuralgic remedy, but the dose must be massive in malarial fevers; and, again, it may fall to five or ten centigrammes when given in the continued dose to obtain its tonic properties. If morphine be injected

in proper quantity, it procures calm sleep; but it is usually exciting in small doses. All these facts have an important practical use, and they impose the obligation of modifying doses according to the state of the patient and the therapeutic effect sought for."

We pass over some most interesting lessons of Dr. Huchard's and close with extracts from the section on "The Abuse of Medicine," where he gives some amusing details of the good old times in France. "Bouvard, one of the doctors of Louis XIII., gave him in one year two hundred and fifteen purgatives and two hundred and sixteen injections, and also bled him forty-seven times. History also tells us of the *Grand Monarque* that he was bled thirty-eight times from 1647 to 1715, and that he took two thousand purgatives, either of 'precaution or of urgency,' as they put it. Indeed, so much was the evacuation system in fashion then, that the Duke of Saint-Simon relates in his works that the Dauphiness had a clyster introduced by her chambermaid in presence of the king and the court. The famous case at law of those times of *Boyau vs. Bourgeois*, for payment of two thousand nine hundred and ten *lavements* administered in two years, is celebrated. Make the calculation, and see how many daily injections the unhappy fellow had to take. Well, these old-time exaggerations, which only excite a smile to-day, were made according to a theory, or a doctrine, and, even if times do change, the theorists remain unchangeable. There are also 'moral indications.' Chomel, a great and honest man, observed, 'In great physical, as well as in psychical, pain, sympathy is sweet to the afflicted, and that of the physician is above all precious.' The doctor, with a little tact, will associate himself closely with all the little trials of his patients, suffering with them as it were; which, after all, is not much of an effort for a man of heart. Called once to a patient in great pain, we asked why he had given up the services of a good doctor that we knew had been in attendance. 'Well, he said he could not cure me, and he did not even comfort me, as he did not *sympathiser* with me.' The advice is given to try to treat patients as much with your heart as with your intelligence. Particularly is kindness useful in nervous diseases, for ever since man existed and suffered the language of pity has always been one of great use in relieving pain. A kind pressure of the hand or a charitable phrase often does more good than all the ingredients that we have boiled, filtered, or crushed in a mortar." Dr. Huchard finishes this part of his work with Trousseau's exclamation to the theorists, "For pity's sake, gentlemen, give us a little less science and a little more art," and he adopts as a profession of faith, "*Ars tota in indicationibus*."

Treatment of Chronic Articular Rheuma-

tism by Passive Movements, notwithstanding the Pain.—Professor Trastour, of Nantes, has published an interesting article on this subject, of which we may give some details. Im-mobility of the joint affected in *acute* articular rheumatism is without question the proper treatment; but it is not the same in *chronic* forms. No matter if the bones, cartilages, ligaments, synovial structures, and muscles are all attacked, Dr. Trastour advises as the first and most important part of the treatment gradual movements with moderate continual exercise. He tells his patients to keep moving, notwithstanding the pain it causes: that is the price of cure. He has seen for the last seven years a series of most excellent results from this method. He was led to adopt the plan from observing that rheumatic patients in the wards who were made to move did not ever get so infirm as those who were permitted to remain in bed. If there is an inflammation in chronic rheumatism, which is disputed, it will certainly not go away, for this disease is progressive, and all the articulations will get it in time if it is allowed to go on. Infirmary increases and becomes incurable, and immobility leads to ankylosis.

Professor Massé, of Bordeaux, Professor Verneuil, and other surgeons recommend motion after the inflammation has been cured, but Dr. Trastour is of opinion that movement must be used at once in all chronic cases. Before applying motion notwithstanding the pain, be sure of your diagnosis of any of the so-called forms of chronic rheumatism (deforming, nodose, gouty, dry arthritis, etc.), because one might fall into an error at first; but if on examination of several joints more than one is found affected (as, for instance, the finger-joints with the knee), the treatment by motion may be recommended. The moment, in fact, that the disease seems to generalize itself, movement must be used. A number of cases were cited to prove the benefit derived. One of them is quite a striking case of a man who had progressed so far towards immobility, according to the rest-system, as to have his food cut up for him, and was afraid to move his hands for the pain. He was induced to try the movement-cure, and soon got the use of his limbs and hands again. Another case was that of a lady and her servant, who were both attacked in the same way and with about the same degree of chronic rheumatism. The servant takes the movement-cure and goes on with her active work, while the lady gets worse in her soft but dangerous repose. It is well known to us all that men are less subject to these troubles, owing to the fact that they are mostly more active than the women. While insisting on the patient "moving on," a general treatment must also be given, the stomach, kidneys, and skin must be watched with care as to the proper exercise of their functions, and everything that can bring up the organism and give it

tone should be used,—meat, beer, iron, cod-liver oil, arsenic, iodine, mineral waters, etc.

For medication the preparations of the iodides are to be preferred, and Dr. Trastour gives the following formulas, which he recommends to be continued for a long time: Iodine (1 gramme) and iodide of potassium (10 grammes), dissolved in distilled water (300 grammes); or, iodide of calcium (10 grammes), combined with lime-water (50 grammes), given in distilled water (250 grammes). Of either of these the dose would be a teaspoonful with noon and evening meal, given in wine or milk.

As to additional local treatment, massage or friction with a stiff whisk broom or broom-brush is recommended, with occasional sulphur baths. To those rheumatics who submit themselves to this sort of treatment early, it is claimed a considerable amelioration will result, and very often a complete cure. In place of crutches, parallel bars must be placed in the room until the patient can walk a little, and then a chair is given to push ahead of him, which afterwards may be given up and two canes substituted. (Professor Rendu, of Paris, gives pure tincture of iodine, in five-drop doses taken in wine, in chronic arthritis.)

Hysterical Symptoms transferred from One Patient to Another by the Use of the Magnet.

—M. Babinski, who is "chef de clinique" to Professor Charcot at the Salpêtrière Hospital, has been making a series of very curious experiments that are attracting a good deal of attention here. They were intended to show that certain hysterical manifestations can be transferred by the use of a magnet from one patient to another, even when they are at some distance apart. In this way he was able to transfer different forms of paralysis, such as brachial monoplegia, hemiplegia, coxalgia, and dumbness. One of the experiments was as follows. A young, hysterical woman, who had been dumb for the last two or three years, was one of the patients operated upon, and the other was a hysteric who could be hypnotized. The patients were brought in apart: the dumb girl was first brought in and put in a chair, and a large, close screen was drawn around her so she could not see the other woman, who was now brought in hypnotized (in the magnetic sleep). She was in turn placed on a chair at a little distance from the screen, so that there was no immediate communication between the women. She was then submitted to the action of the magnet, and in a few minutes she was ordered to speak by M. Babinski, but she could not articulate a word, while the other patient (the dumb one) on being touched with the magnet was able to answer clearly all questions put to her. Every precaution was taken so that it would be impossible to say that this effect was produced by suggestion or by any

simulation. The action lasts but a few minutes, and the patients quickly return to their original state. In further experiments, however, M. Babinski reports to the last meeting of the Société de Biologie that a considerable amelioration was noticed in certain cases of spontaneous paralysis, and in one case of hemiplegia following an attack complete disappearance of the paralysis was obtained after four consecutive experiments. So that we may have here a new method of treatment which, when followed up, may lead to important results that we will report in due course.

The Fasting Men.—The arrival of Signor Succi here, who fasted thirty days in Milan, with the aid of a marvellous liquid that he drank first, and the fact that a young Italian named Stefano Merlatti has undertaken to fast fifty days with nothing but filtered water, has caused considerable stir in scientific circles. It is not at all likely that Succi will find any of the serious doctors of Paris willing to act on a committee to watch the effect of his liquor in regard to fasting, but Merlatti has induced several medical men to watch and control his experiment to prove that a long fast can be done without the aid of any mysterious drugs. It came about in this way. Many of the Paris daily papers have doctors who are attached to their staff to write scientific articles for their columns, and a certain Dr. P. Maréchal had written in the *Voltaire* very strongly against Succi and his liquid, and gave it as his opinion that a man could not honestly fast more than ten days. This brought a number of all sorts of people to the doctor's door with offers to prove that they could fast for a number of periods from ten to fifty days. Merlatti wrote to him from London, and said that he had already fasted thirty-six days and would do fifty. Although no answer was given to him, he came over to Paris, and a committee was formed consisting of Drs. Maréchal, P. Collin, A. Combe, E. Monin, and P. Dutrieux Bey, and Dr. Audhoui, physician to the Pity Hospital, was induced to act as consulting physician. The Grand Hotel gave a parlor and bedroom on their first floor, and the fast began by Merlatti eating a good dinner and agreeing not to take anything but water for fifty days. We were invited to call as often as we liked to see the experiment, and had some conversation with Merlatti. He says he was born at Mondovì, near Turin, Italy, on March 21, 1865. He is a slight, boyish, dark Italian, who has been working at drawing in London for a year or so. He is quite intelligent, speaking French and a little English, besides his native tongue. He told us that he first fasted ten days as a boy of twelve: his teacher had beaten him, when he ran away off to the woods and had nothing but water for ten days. Afterwards, in London, he made a bet with his fellow-

workmen that he could go forty days without any food, and he says he actually did go thirty-six days, while watched by his friends. The present trial seems to be made with every precaution as to honesty. Two men watch him all day, and one all night, while the doctors call twice a day. His weight before starting was 61 kilos 200 grammes. On the tenth day, when we saw him, his weight was 57 kilos 100 grammes, pulse 72, temperature 37° C., dynamometer 140, spirometer 2.400, and total urea 4.6 grammes. On the twentieth day, when we saw him again, he looked a good deal emaciated, and his pulse was 72, temperature 36.8°, weight 53 kilos 850 grammes, and urea only 2 grammes. He said that his head ached a good deal, but he felt well otherwise, and he did not care for food after the second day. He says he is determined to continue for the fifty days, but Dr. Audhoui says if he loses more than a third of his weight he will tell him to stop.

About the scientific value of this experiment not much can be said; the doctors admit that; but nevertheless it is a curious thing that a man can exist so long without food as even the twenty days now past. No doubt it is very risky in physiological life to live on capital, and, as far as we know, it cannot result in good unless from the rest it affords to the principal organ of digestion in ulcerous complaints or gastritis.

Combination of Antiseptic Substances.—Certain of the antiseptics cannot be applied to all the tissues at a degree of concentration sufficient to produce their antiseptic effects without danger, owing to the fact that they are caustic or otherwise poisonous. For instance, a solution of bichloride of mercury of one to thirty thousand cannot be used upon the pulmonary parenchyma.

M. Lépine has been experimenting to get a solution that would be harmless, and at the same time unite and augment the effects of the different antiseptic substances. He gives the following in solution in distilled water:

One-hundred-thousandth part of corrosive sublimate.

One-thousandth part of salicylic acid.

One-thousandth part of carbolic acid.

One-half-thousandth part of benzoic acid.

One-half-thousandth part of chloride of lime.

One-ten-thousandth part of bromine.

One-two-thousandth part of hydrobromic acid of quinine.

One-two-thousandth part of chloroform.

This composition is not at all irritating, and it has the very strongest kind of antiseptic properties, seeming to act with the full force of each ingredient.

Some Inconveniences of the Milk-Treatment in Stomach-Diseases.—Professor Debove gives

the following history of a patient, which proves that we should use more care in the indiscriminate use of the milk-treatment in stomach complaints. Two years ago the man in question presented all the usual symptoms of alcoholic gastritis: his hands trembled, he had pyrosis and pains running to his back, and later he vomited blood, giving rise to the supposition of ulcer of the stomach. Upon consulting a doctor he was advised to take two quarts of milk a day. He followed this treatment conscientiously, and he was before long in such a state of weakness that he was brought to the hospital, where he was advised to take eight quarts of milk a day: at first he did fairly well, but later he had lost over thirty pounds in weight. When Dr. Debove saw him he was not able to walk nor even to stand up, and he had an enormous dilatation of the stomach, proved by washing it out, as some three quarts of liquid were withdrawn. This washing out was renewed every day, and only a quart and a half of milk was given, with some solid food. After three months' treatment the patient was well enough to be sent to the country for his health.

It results from this that milk must be employed with some limit as to measure to obtain its incontestably good effects.

THOMAS LINN, M.D.

PARIS, November 19, 1886.

NEW YORK.

THE Meeting of the State Medical Association.—The Third Annual Meeting of the New York State Medical Association was held at Lyric Hall, New York, November 16, 17, and 18, Dr. E. M. Moore, President. The number of casual listeners seemed to be smaller than at the first two annual meetings, but the number of members who registered, being about one hundred and fifty, was nearly equal to that of the two preceding meetings. The attendance from New York City and Brooklyn seemed to be diminished, but this perhaps was made so intentionally, as only members or those holding a card of admission could enter the hall. The number of physicians from without the State who had by invitation prepared papers to read before the Association was a noticeable feature, and added not a little to the attractiveness of the meeting. Of these, Drs. Varick, of New Jersey, John B. Hamilton, of Washington, C. T. Parkes, of Chicago, and C. B. Nancrede, of Philadelphia, participated in the discussion on "Shot-Wounds of the Intestines;" Dr. James Tyson, of Philadelphia, took part in the discussion on "Eclampsia." The subjects discussed in the papers were generally practical, and at least interesting, and as a whole were handled in a very creditable manner. The younger physicians who had not had a large experience in writing showed a marked improvement in the preparation of their papers

over former years. If any general objection could be made, it probably would be that the writers attempted to treat of their subjects too exhaustively. This view was the more forcibly impressed because of the large number of papers presented: each author prepared his paper apparently without a knowledge of what the others had written, and although assigned a particular part of the subject for consideration, the introductory or general remarks in the several papers, while presented in different words, were essentially the same. This was most apparent in the discussion on "Shot-Wounds of the Intestines," as the authors held nearly the same views, and had previously made them known to the profession through medical societies and journals. It was least observable in the discussion on "Eclampsia," as here there was a marked difference of opinion regarding the cause, the treatment, and the prognosis of the disease. The real views of the participants in the discussion, uninfluenced by the opinion of that or the other eminent authority, would probably be more nearly arrived at in an off-hand discussion, although with a less display of learning.

In the discussion on "Shot-Wounds of the Intestines," participated in by Drs. W. S. Tremaine, J. D. Bryant, E. M. Moore, W. T. Bull, T. R. Varick, C. B. Nancrede, F. S. Dennis, J. B. Hamilton, and C. T. Parkes, there was general unanimity in the view that laparotomy should be performed, the intestinal wounds closed, and the abdominal cavity cleansed. The difficulty of the procedure, however, was admitted. To assist in an exact diagnosis, Dr. Hamilton claimed that it was good surgery to probe the abdominal wound, using not too small a probe and exercising care in order to avoid puncturing the peritoneum or gut.

Regarding pulmonary tuberculosis (discussed by Drs. H. D. Didama, John Cronyn, H. M. Biggs, H. L. Elsner, W. H. Flint, and John Shrady), Dr. Didama claimed that it had not been shown to be hereditary in the sense that the newly-born infant ever had pulmonary tubercles; that in the large majority of cases consumption manifests itself in persons whose parents were not consumptive; precautions should be taken to avoid possible contraction of pulmonary tuberculosis from those suffering with the disease. Dr. Elsner claimed that, in the present state of our knowledge, we were justified in speaking of bacillary tuberculosis and of non-tuberculous consumption.

In opening the discussion on eclampsia, Dr. Lusk presented the different views which had been advanced regarding the causation of puerperal eclampsia, and thought that a sufficient number of cases had been reported in which there was no evidence of renal disease to prove that uræmia could not be claimed as the exclusive exciting factor. Dr. Thomas

had seen only two cases out of a large number in which there was absence of definite signs of kidney-complication, and Dr. Tyson also took the view that in the very large majority of cases the cause of puerperal eclampsia was to be looked for in disease of the kidneys. Dr. Thomas said that in a case with mild symptoms he might temporize with purgatives only in case there was an experienced physician in attendance. His experience differed from that of Dr. Thomas, who had found the only safety to lie in induced labor. According to his observation, the conclusion of gestation causes a cessation of the convulsive symptoms. He had seen two cases in which the convulsive symptoms ceased immediately after the death of the fœtus, although the dead body remained in the womb for some time afterwards. Dr. Colvin, on the contrary, had found the induction of labor seldom called for when the physician resorted to venesection at each occurrence of convulsions, regulating the amount of blood drawn by the effect upon the pulse. He also gave cathartics and employed other general measures. Dr. E. D. Ferguson said he had seen twenty-five or thirty cases of puerperal eclampsia, and none had resulted fatally except those in which violent measures were employed connected with the induction of labor. Dr. E. D. Moore regarded the employment of chloroform, which some of the speakers had recommended, as dangerous, especially as its administration would have to be unduly prolonged if continued to the cessation of the convulsions; whereas ether could be given as long as there were any symptoms of convulsions. He also gave an active cathartic, and the most effective at the time of the convulsions was croton oil. Sulphate of magnesia was more suitable to the case, and should be employed after the convulsions had ceased and during the remaining weeks of pregnancy. Dr. MacGregor, in considering the question, In what proportion do the insane in public asylums owe their insanity to puerperal convulsions? arrived at the conclusion, from correspondence with the medical authorities of over sixty asylums, that a causative influence between puerperal eclampsia and insanity had yet to be shown.

An interesting paper was that read by Dr. Alfred L. Carroll, on "Recovery *versus* Cure." The author showed in a somewhat caustic manner the presumptiveness of physicians in so commonly attributing the recovery of patients to the effect of drugs administered, rather than to the efforts of nature, whose constant tendency was to overcome disease if the patient would only cease to violate the health-laws. That the tendency of the diseased was towards recovery was evident from the fact that they did recover under a great variety of opposing methods of treatment,—at the hands of the quack, the homœopath,

the commercial medical advertiser, as well as at the hands of the regular physician. The lesson drawn was, "Be content to do nothing unless you are sure you can do good."

An interesting specimen, consisting of a large mass of hairs matted together, and causing death by its presence in the stomach, was presented by Dr. Finder. Dr. Alvin A. Hubbell reported a case of congenital stenosis of the nose from a thin partition of bone, which was overcome by a hand-drill. The passages again becoming occluded, the openings were again enlarged and kept dilated for some time by the patient wearing a tube of block-tin.

There were about fifty papers read altogether. The Association still holds to the rule adopted at the last annual meeting, of allowing no paper to appear in the volume of Transactions which had previously been published in a medical journal.

Dr. Isaac E. Taylor, of New York, was elected President.

Medical Society of the County of New York.—At the adjourned annual meeting held November 22, 1886, Dr. John C. Peters, of the Committee on Hygiene, read an additional report, in which the committee recommended that the baling of stable-manure be enforced in every practicable and reasonable way. The advantage of this method of disposing of the manure was that it could be baled inside of the stables, doing away with the filling and emptying of sidewalk manure-pits.

On recommendation of the Treasurer, a resolution was passed providing for the payment out of the treasury of the dues of members who were in arrears and whose present circumstances would make it embarrassing for them to pay such dues; and providing also for the expulsion of members who were able to pay their dues but refused to do so.

Dr. Daniel Lewis, President of the Society, read a brief address, in which he spoke of the harmonious relations existing between the Academy of Medicine and the County Society, of the desirability of a complete membership from among all honorable physicians in the city. He then introduced the President-elect, Dr. Laurence Johnson, who called the stated meeting to order and proceeded to read his address, in which he dealt with the subject of the relations of the Society to the public at large, to the Board of Health, to the general profession, and to itself. He spoke of medical charities, and thought one way to avoid their abuse was for the physician to base his charges to poor patients upon their ability to pay, and not necessarily according to the value of his services, which perhaps could be paid only by the well-to-do or the wealthy. The poor of New York constitute nine-tenths of the population. The paupers could be left for the care of charity institutions proper. Regarding specialism, he said there are

specialists evolved from general medicine, and these and the general profession were always in close sympathy with one another; but there are also specialists who were not evolved from general medicine, but as it were from the raw material, and these had no sympathy with the family physician, and the general profession could have little with them; the subject of general medicine had no interest for the latter class of specialists.

Dr. James O'Reilly, against whom charges were made, was expelled from the Society.

It was resolved to continue the publication for another year of the "Medical Directory of the City of New York," to be edited by the Comitia Minora.

R. C. S.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

A CLINICAL meeting was held November 17, 1886, Dr. William Osler in the chair.

Dr. J. C. Wilson read the report of a case of "Peritonitis in Enteric Fever, terminating in Recovery, with Remarks" (see page 175).

DISCUSSION.

Dr. Frank Woodbury: The recommendation of the lecturer with regard to operative interference at once raises the interesting and important question of diagnosis. Two classes of cases are at once recognized,—peritonitis with perforation, and peritonitis without perforation. The suggestion with reference to operation generally would apply only to the former. Cases also in which there is bursting of an infarct of the spleen or in which septic material is thrown into the peritoneal cavity from any other source would come under the same head. I think in such a case, if other circumstances do not specially forbid the operation, the suggestion of Dr. Wilson is one that might be acted upon. Where perforation occurs in typhoid fever there is not only foreign matter in the peritoneal cavity, but intensely poisonous foreign matter, and we might in these cases open the abdomen and try to render the field aseptic, just as has been done successfully in suppurative peritonitis from other causes. In typhoid fever we not only have the special bacteria of this disease, but, owing to the absence of the gastric juice for several weeks and the almost entire abolition of the function of digestion, there is a collection of sordes along the gastro-intestinal tract which serves as a culture-medium for all kinds of micro-organisms. When the gut is opened and this fluid is poured into the peritoneal cavity, it is clearly our duty, if considered from a surgical stand-point alone, to remove it if possible. At the same time, I should not say

that all cases of peritonitis due to perforation of the bowel should be operated upon. We know that cases of peritonitis with perforation occurring in the course of typhoid fever sometimes recover with the aid of appropriate treatment. Opium, which was so successful in the case reported, has also been successful in other cases. We should first eliminate this favorable element from the prognosis. If the case were one that could not recover otherwise, we might formulate the law that it should be operated upon: even if the chance is a desperate one, it would be the patient's only chance; but I make the point that some cases of perforation do recover without resort to surgical measures, although I admit that the result is usually a fatal one.

In the cases of peritonitis without perforation, the extension of inflammation from the mucous to the serous coat by contiguity has always seemed to me an exceedingly hypothetical explanation. In hospital practice I have seen at least two cases coming under my care late in the disease in which there was pyæmia. There were collections of pus around the joints and under the skin. Now, peritonitis is not a rare occurrence in pyæmia; and it seems to me that this should be considered as one of the possible causes of peritonitis where it occurs without perforation in typhoid fever. In rare instances, then, the cause of the infection is through the blood, but it may be more direct. Who can say, at the post-mortem examination, that there has not been a minute perforation in the very thin wall of the intestinal ulcer which has been sealed by lymph before death? A pin-hole perforation sufficient to allow the extension of inflammation from the mucous to the serous coat may have existed and afterwards closed, so that it may become an impossibility to discover it.

I wish to call particular attention to a condition which may simulate peritonitis in just such cases as have been described to-night, and which is interesting from a diagnostic point of view. I have met with it in a number of patients who had been treated with the greatest care as regards diet, and every effort made to avoid irritation of the bowel. The case goes on to defervescence, and within a week after the temperature has reached the normal the patient partakes of a meal of bread and soft-boiled egg, usually at breakfast-time. The result is that on the same evening there is a return of the fever, with abdominal tenderness, tympany, and diarrhoea, and sometimes a few spots reappear upon the surface of the abdomen. In the condition of the intestinal tract present after typhoid fever the albumen of egg seems to act as a poison, at least in some patients. I merely mention this to show the possibility of confounding the two conditions. I now avoid this recrudescence of the fever by simply omitting the albumen of the egg from the dietary and giving the yolk alone, with milk or wine, two or three

times a day. This is generally well borne and causes no irritation.

I was much interested in the case reported, but I was unable to gather from Dr. Wilson's remarks whether or not there were evidences of effusion. This would of course be an important element in the diagnosis of peritonitis.

Dr. William Osler: I think that the cases of peritonitis following typhoid fever can be grouped into three sets. The first group is that in which perforation occurs from the depth of the slough. This constitutes the largest group of cases, and the fatal event is most apt to take place in the second or third week. I have seen it as early as the tenth day, if not earlier. In these cases the condition of the patient is, as a rule, such that the operation of laparotomy would scarcely be indicated: the patients are so profoundly overwhelmed by the severity of the attack that they are in no condition to stand an operation; the ileum, moreover, on which the operation would be performed, is in a most unfavorable condition for surgical interference, the wall of the gut being infiltrated and swollen.

In a second group of cases the operation might be successful. In these instances the sloughs have already separated, but the ulcers remain, and from some indiscretion, usually in diet, a slight tear takes place at the bottom of the ulcer, with the development of peritonitis, which is usually fatal. This may occur late in the disease, long after the fever has subsided and the patient is supposed to be convalescent. One such instance I have reported, in which the perforation occurred between two and three weeks after the temperature became normal. It resulted from the patient eating two or three chops which were injudiciously given to him. The patient died within thirty-six hours after the occurrence of the rupture. In this case there was found an unhealed ulcer with a narrow rent at the bottom.

The third group is a very limited one, in which the peritonitis has resulted from the extension of inflammation from a slough or ulcer. While peritonitis from this cause is not very frequent and is not very extensive, I can state positively that it does occur.

I think that in the cases in which perforation takes place as the result of indiscretion in diet during convalescence, laparotomy would be indicated. In the first group of cases the operation would probably do no good. An interesting question arises in this connection, and that is how soon in typhoid fever we should return to a more solid diet. I make it a rule not to give solid food for at least ten days from complete evening defervescence.

Dr. Wilson has spoken as though a large quantity of fecal matter escaped into the peritoneal cavity in the perforation occurring

in typhoid fever. It is exceptional in my experience to find in these cases a large amount of fecal extravasation. Adhesion of the coils of intestines rapidly takes place and prevents this.

Dr. Frank Woodbury: What is the criterion of inflammation in a serous membrane?

Dr. William Osler: Practically, as applied to the intestine, neither redness nor swelling, but lymph: perhaps not lymph that can be distinctly peeled off, but sufficient to dull the normal glossy appearance of the membrane. That is, I think, the criterion of inflammation in the peritoneum, the pleura, and the pericardium.

Dr. Woodbury: That I understand to be the usual histological criterion of inflammation; the pathological one is that inflammation is nature's reaction against an irritant. In the case in question this irritant is nothing more nor less than a form of bacteria. I would ask, in the absence of septicæmia, how the fluids containing the bacteria can get from the interior of the gut to the serous membrane outside without the existence of a perforation, however minute? It seems to me that there must be a direct means of egress in these cases through the intestinal wall from the mucous to the serous surface.

Dr. J. Howard Reeves: I would like to report a case of mild typhoid fever in which imprudence in diet was followed by a series of rigors, hemorrhage from the bowels, and peritonitis; the peritonitis continued nine days, and was followed by recovery; the typhoid convalescence was very slow.

Dr. J. C. Wilson: I may say to Dr. Woodbury that in the case reported there was no error in diagnosis. It was carefully examined from every point of view both by myself and by Dr. W. W. Keen.

I recognize the propriety of the remarks of Dr. Osler. When I spoke of extravasation of the intestinal contents I did not mean to imply that a large quantity was thrown out. In enteric fever the nature of the intestinal contents is such that a small quantity may set up a very serious inflammation. On two occasions, however, I have found scybalous masses in the peritoneal cavity, and in one case recovered a fragment of sweet potato.

I recognize the force of his division of the cases, from the pathological stand-point, into three groups. The second group of cases is certainly the most available for operation to save life, but I do not believe that even the first group should be wholly excluded from consideration. Many cases of traumatic peritonitis have been saved by operation during the past few years which no one, five or ten years ago, would have thought of subjecting to operation. The operation should be done in cases of impending death from perforation with the slim hope that it will succeed. If the operation be performed—as I confidently expect—in enteric fever, it will be at first in the

second group suggested by Dr. Osler; if it succeeds there, it will be after a time considered right to operate even in the first group.

Dr. William Osler read a paper on "Duodenal Ulcer: Clinical and Anatomical Considerations based on Nine Cases."

DISCUSSION.

Dr. John E. Whiteside: The patient whom Dr. Osler saw with me had suffered with dyspepsia for a number of years previous to his last illness. The abdominal pulsation which has been referred to was at times extremely distinct. I agreed with Dr. Osler that this was probably due to aneurism. The first vomiting took place four days after the patient was seen by Dr. Osler. A few days later the patient was taken with a violent attack of pain, and died within fifteen minutes. The post-mortem examination at once explained the trouble, for the whole abdominal cavity was filled with blood.

Dr. William E. Hughes: I wish to put on record a case in which the diagnosis of duodenal ulcer was, I think, confirmed by the subsequent history of the case. The patient was a farmer, 26 years of age, who had complained for about two years of dyspeptic attacks. Under an exclusive milk diet the dyspepsia was much lessened, but did not entirely disappear. The main symptom was extreme pain, which appeared two or three hours after eating. It was located to the right of the epigastrium, and was accompanied with slight tenderness. On several occasions after these attacks of pain the patient passed large quantities of pretty fresh blood by the bowel; the general condition was fairly good. He then went to the country. Some time later his physician wrote to me after one of the attacks of pain the patient passed into a condition of collapse, from which he reacted, and two or three days later a fluctuating mass developed in the epigastrium to the right of the median line. I have been unable to obtain any further information in regard to the case.

Dr. Frank Woodbury: I wish to report a case of ulcer in the upper part of the small intestine. A young woman aged 22, a school-teacher, while at her occupation, and apparently in health, was taken with severe pain in the abdomen, and was brought into the German Hospital. Peritonitis developed on the following day, and she died that night. At the autopsy a small, round, perforating ulcer was found in the upper part of the jejunum; a large lumbricoid worm was also found in the vicinity. The question was discussed whether there was any connection or not between the presence of the worm and the thinning of the gut.

Dr. William Osler: The pain in duodenal ulcer is very irregular and variable; the attacks may come on after meals or independent of the taking of food; there are

instances in which pain has been entirely absent.

A remarkable feature is the length of time that these cases last. There are cases on record in which the duration has been ten or fifteen years.

The pulsation observed in Dr. Whiteside's case was probably due to the anæmic condition and to the fact that the thickened head of the pancreas and the thickened ulcer were immediately over the aorta, which in systole pushed up the left lobe of the liver and produced the wave of pulsation which was so visible.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

STATED MEETING, OCTOBER 7, 1886.

The President, B. F. BAER, M.D., in the chair.

(Continued from page 165.)

DR. BAER also presented the specimen and related the history of

A MONOCYST OF THE OVARY.

Mrs. J., aged 29, married four years, sterile; puberty at fourteen years of age, and menses always normal. Seven years ago she first discovered that the lower portion of her abdomen was increasing in size. This continued very slowly during the next three years, and at the time of her marriage it was large enough to be perceptible to her friends. It ceased growing until six months previous to the date at which she first consulted me, April 14, 1886, when she seemed to be in excellent health; no loss of flesh, no pain; complexion ruddy, and appetite good. Menstrual flow increased, and accompanied with uterine tenesmus during the last two months; and she had begun to complain of pressure and over-distention. When the patient was in the dorsal position the abdomen did not flatten out, and it was symmetrical and smooth. Dulness on percussion over the anterior and lateral surfaces of the projecting portions of the abdomen, with resonance in the line of the colon. There was marked fluctuation in the dull region. Vaginal examination showed the uterus anteverted, of normal size, not freely movable, yet not closely adherent to the tumor.

Diagnosis, probably cyst of the broad ligament, from the long existence of the tumor, its slow growth, symmetrical development, together with the fact that it had not influenced the patient's health during its growth until it had attained such size as to interfere with respiration. Its removal was advised, and the operation was performed at my private hospital April 27. An incision three inches in length was made. The tumor was rather darker in appearance than is usual in cysts of

the broad ligament. It was now tapped and a dark grumous fluid drained away. The tumor collapsed and was easily drawn through the incision, when its pedicle was found to consist of the entire broad ligament and to be very short, holding the base of the tumor deep in the pelvis. I was compelled to enucleate the cyst, leaving a broad open pedicle or surface which I ligated *en masse*.

An accident now occurred from which the patient almost lost her life from hemorrhage, —viz., slipping of the pedicle ligature. The mistake was in endeavoring to make a pedicle of the broad ligament, which had been laid widely open by the enucleation of the tumor, and which was not a proper pedicle. The mass was too great to be held by ligature, and was treated by bringing the edges together by interrupted sutures, of which ten were required. The hemorrhage was checked by grasping the vessels in clamp-forceps until the sutures were placed. There were no after-symptoms. The patient is now entirely well.

I call attention to the monocystic character of this tumor, its location in the broad ligament, and to the character of the contained fluid,—dark-colored and thick, not clear and limpid as is usual in cyst of the broad ligament proper.

The report of Dr. Formad is: "The cyst is a monolocular one, developed from the ovary undoubtedly. Its lining is characteristic of ovarian cysts, epithelial, and whatever scrapings from the wall could be obtained showed the ovarian cells of Drysdale. The fluid was dark, grumous, and turbid, which excludes cysts of the broad ligament or parovarium, as the latter kind of cysts have always a limpid clear liquid."

Dr. B. F. BAER also presented the specimen and read the history of

A CASE OF BURSTING CYST OF THE OVARY.

Mrs. E. G. was sent to me by her physician, Dr. James Simpson; she was 47 years of age, and had been married twenty-seven years, but had never been pregnant; puberty at fourteen years; menstruation always painful. She stated that twelve years ago she had felt a "lump" in the left iliac region; this was painful, especially during the menstrual period. In the fall of 1885 the lower part of her abdomen began to enlarge, and within a few months it had so increased in size as to render locomotion and respiration difficult. On January 1, 1886, while riding in a street-car, she was jolted in crossing a railroad-track. She was at once seized with great pain in the abdomen, accompanied with pallor and faintness. She was taken home and placed in bed; a short time afterwards she began to vomit a fetid fluid which came up in large quantity and at regular intervals, and at the same time she passed fluid of the same character from the bowels; the next day she had, in addition, attacks of profuse perspiration;

she also had a slight metrorrhagia, the first evidence of menstrual flow since January, 1884. The abdomen rapidly diminished in size, and within a week had regained its normal dimensions. It was three weeks before her strength had returned sufficiently to permit her to go about. She soon noticed that her abdomen was filling up again, and within a month it had become as large as it had been on January 1. During the first week in March she was again seized with pain of the same character, and followed as before by vomiting, purging, diuresis and diaphoresis, and reduction of the abdominal distention. All of the symptoms were more marked in the second attack. Six weeks afterwards she was as large as ever, and she then came into my care.

She presented an appearance of great pallor and commencing emaciation; the "facies ovariani" becoming plainly perceptible. She was very nervous and excited for fear of a repetition of the phenomena that had occurred before.

On examination in the dorsal position the abdomen was rather projecting, not flat, and was larger on the right than on the left side; it was smooth throughout, and gave a dull sound on percussion over the whole anterior surface, resonance existing in the line of the colon. There was marked fluctuation throughout the dull portion. Vaginal touch showed the uterus to be situated high as if it were drawn upward; it was not freely movable, and the external os was too small to admit the sound.

Diagnosis, ovarian cystic disease. Immediate operation advised.

On July 22 the operation was performed at my private hospital. Incision three inches, in median line; wall of the tumor thin and dark-colored. The trocar was passed and the contained fluid, dark in color, drained away. The cyst collapsed and was easily drawn through the incision. The pedicle was short and broad, consisting of the broad ligament, and requiring enucleation of the tumor before its ligation could be accomplished. It was now found that another tumor existed on the left side. This had a peculiar shape, being elongated, and deeply seated in the pelvis as though it were entirely sub-peritoneal. The peritoneum extended out from the uterus, spreading over the tumor, and approaching the abdominal wall as is sometimes seen in a fibroid tumor of the uterus which has pushed that membrane upward in its growth; the cyst extended along the line of the colon, and at first I was not sure that it was not that organ greatly distended by gas. I soon determined that it contained fluid, and that its general appearance, color, etc., were similar to those of that just removed. It was emptied by means of the trocar of a fluid similar to that of the first tumor, and the tumor collapsed. I hesitated as to the proper course now, because

of the large and broad base of this cyst and its close adhesion to the descending colon. I first thought of stitching it to the abdominal incision and inserting a drainage-tube into it, and was soon afterwards sorry that I did not follow out my first idea. I began an attempt at enucleation, and this was attended by so much hemorrhage from the large surface which it was necessary to dissect that I was compelled to desist. I had separated at least six inches of the descending colon from the cyst when I found that the latter dipped down so deeply into the pelvic excavation that I concluded it would be hazardous to finish the enucleation. I was in a quandary, for I had only two-thirds of the lining membrane of the cyst in my control, and I finally did what I was never compelled to do before,—and what I may be criticised for doing in this case,—I drew up as much of the cyst as was possible, threw a ligature around the mass, tied it as a bag, and cut away the external portion, thus leaving a large quantity of the lining membrane still within the pelvis. The oozing of blood from the large open surface was checked by ligatures and compression-forceps until the bleeding had ceased; the toilette of the peritoneum was then made, a drainage-tube inserted, and the incision closed. During the next few hours there was a free discharge of bloody serum through the tube, but by the next morning it had ceased. On the third day the tube was removed. The patient made an excellent recovery, and went home on the twenty-third day.

The points of interest in the case are:

1. The bursting character of both the cysts.
2. Their monocystic character and probable ovarian origin.
3. The deep attachment of the one on the left side, and its partial removal only.

"Bursting Cysts of the Abdominal Cavity" is the title of a very instructive paper which was read before the Gynecological Society in 1881 by Dr. William Goodell, and in the paper itself and the discussion which followed it was shown that this character of tumor is not so rare as the experience of a single individual might indicate. In addition to the cases which Dr. Goodell himself reported, three in number, there were no less than ten of the members present who had met with cases of a similar character, some of the gentlemen as many as six or seven. Only two or three of the cases reported died as the result of the discharge of the fluid into the abdominal cavity. This appeared to prove that the fluid of an ovarian cyst was not so irritating to the peritoneum as had been supposed. Dr. Goodell took the position that these cysts were of the broad ligament or parovarium, and not true ovarian cysts, and, as a consequence, the fluid was bland and unirritating, being readily absorbed and discharged through the emunctories. This view is probably correct for the majority of cases,

but there are others where the evidence furnished by operation has proved the origin of the bursting cyst to have been in the ovary. The monocystic character of the tumors in this case, and their location beneath the peritoneum, within the folds of the broad ligament, would seem to indicate that they originated in the parovarium and not in the ovary; but the character of the fluid and its rapid secretion are in favor of an ovarian origin.

An interesting feature in this case is the fact that the fluid was discharged by vomiting and purging, as well as through the bladder and skin, showing that it must have been emptied into the abdominal cavity as well as into the intestinal tract. From the close attachment of the tumor on the left side to the colon, it is probable that this cyst discharged itself into that organ and was thus thrown off by vomiting and purging; while the fact that diuresis and diaphoresis took place at the same time in such quantity, and that the abdominal distention entirely disappeared, would lead to the conclusion that both cysts must have burst simultaneously, the one discharging into the bowel, the other into the peritoneal cavity. This is interesting if true, and probably unique; at least I have not been able to find a record of a similar case. I examined this patient recently, and found only a slight induration on the left side; she has been quite well.

Dr. HARRIS mentioned a case of bursting cyst that had been sent to Dr. Atlee for operation after the cyst had burst once and refilled. The day had been fixed for operation, but, menstruation coming on, a postponement was made, and the cyst again burst, and the woman died in collapse. Ovarian tumor had been diagnosed.

Dr. PARISH reported a case of rupture of an ovarian cyst which occurred in the "old women's ward" at the Philadelphia Hospital. The rupture was spontaneous while the woman was in bed; she died in a few minutes from shock. In another instance, in which rupture had not been suspected, one cyst, the contents of which were colloid, had burst, another ovarian cyst was found and removed. There was no evidence of acute inflammatory action.

Dr. BAER exhibited a

FIBROID POLYPUS OF THE UTERUS.

The patient had suffered from metrorrhagia for two or three years. Labor-like pains were followed by spontaneous expulsion of the tumor, which was supposed by three physicians to be an inverted uterus: it was replaced in the vagina and tamponed. Dr. Baer found the uterus in normal position, and removed the tumor by means of the spoon-saw.

W. H. H. GITHENS,
Secretary.

NEW YORK PATHOLOGICAL SOCIETY.

A STATED meeting was held November 10, 1886, the President, JOHN A. WYETH, M.D., in the chair.

FIBROID TUMOR OF THE OVARY.

Dr. H. MARION SIMS presented a double fibroid tumor of the ovary, with the following history. The patient, aged 48 years, had borne two children, the youngest sixteen years ago. She had always enjoyed excellent health until about five years ago, when she began to suffer from bearing-down pains, pain in the back, and inability to walk or stand with comfort. About two years ago she noticed quite a large lump in the right side of the abdomen. This grew, and with its growth the pain increased in violence until a few months ago she was unable to leave the bed. Dr. Sims made the usual abdominal incision, and found a double fibroid tumor of the right ovary, with few adhesions, which he easily removed. The patient recovered without an unfavorable symptom, and had remained well. The case was interesting because of the rarity of purely fibroid tumors of the ovary.

DOUBLE ANEURISM OF THE HEART.

Dr. THATCHER presented a heart which he saw after the autopsy had been made by another physician. The history of the case was imperfect, but the woman was about 50 years of age, had had eight abortions, had an attack of rheumatism about two years ago, since when she claimed to have been unable to work, although about three days before death she was able, her friends stated, to go on a spree, to which they attributed her death. She seemed to have died of heart-failure. The heart alone came into the possession of Dr. Thatcher. It presented two aneurismal sacs near the apex, the one of the size of two fists, the other of the size of a single fist. Both had a communication with the left ventricle by an opening about the size of a match. Their walls were apparently composed of the two layers of the pericardium, which probably had become adherent to the heart by pericarditis before the ventricular openings had formed. The blood passing from the ventricle through these openings distended the sac, and formed the aneurisms. The walls of the heart were very thick, except immediately around the openings, where little else than the thin fibrous structure remained.

CONGENITAL CYSTIC DEGENERATION OF ONE KIDNEY.

Dr. L. EMMET HOLT presented the right kidney and what remained of the left, removed from the body of an infant aged 10 months. The child had dysentery, and during its illness developed albuminuria. There were no casts, and the amount of urine was

normal. The autopsy showed enlargement of the right kidney. It weighed two ounces, and was the seat of acute parenchymatous degeneration, which was accounted for by the high temperature during the last week of life. The left kidney was replaced by a body about the size of a pigeon's egg, composed of one larger cyst and a number of smaller ones, held together by some loose connective tissue, and apparently containing no trace of renal tissue; the ureter was pervious to within an inch of the kidney, but was smaller than the right; the left renal artery was about one-sixth the size of the right; the bladder and genital organs were normally developed.

Dr. ROGERS also presented the kidneys of an infant illustrating the same morbid condition as the specimens presented by Dr. Holt. The history of the child was unknown. The right kidney was found normal, while the left was replaced by several small cysts.

REVIEWS AND BOOK NOTICES.

A MANUAL OF MICROSCOPICAL TECHNOLOGY, FOR USE IN THE INVESTIGATIONS OF MEDICINE AND PATHOLOGICAL ANATOMY. By DR. CARL FRIEDLAENDER. Translated, with permission, from the Second Enlarged and Corrected Edition by STEPHEN YATES HOWELL, M.A., M.D., Buffalo, New York, New York and London, G. P. Putnam's Sons, 1885. Pp. 249.

The remarkable accessions which have recently been made, to the knowledge of the etiology of infectious diseases particularly, have given to medical microscopy increased prominence. This manual treats of the technics of the microscope, the preparation of specimens, and examination of various fluids and solids.

The translator has enhanced the value of this very practical work by adding numerous notes, and by introducing an illustrated article embodying the recent discovery of the comma-bacillus of Asiatic cholera, and treating of its morphology, cultivation, staining, and examination for diagnostic purposes. The book is well printed.

NEW REMEDIES AND CLINICAL NOTES.

EMBALMING DEAD BODIES.—Dr. H. R. Tilton, Surgeon United States Army, writes from San Francisco that he has read the request of Dr. Kennedy for information as to the best, simplest, and most ready method of preserving dead bodies. He has tried the Wickersheimer formula, and says that it is an impracticable method, at least for the general

practitioner. "There is too small an amount of antiseptic material in the Wickersheimer formula to hold out any promise of success. It is impracticable for the average country practitioner to complete the process by immersing the body, after injection, in a solution, and then enclose it in an air-tight case. Fortunately, this is entirely unnecessary. The following formula will preserve the body if the injection is properly done: Take of the solution of chloride of zinc (U. S. Ph.), one gallon; solution of chloride of sodium, six ounces to the pint of water, six pints; solution of bichloride of mercury, one ounce to the pint of water, four pints; alcohol, four pints; carbolic acid (pure), one-half pint; carbolic acid dissolved in glycerin, one and a half pints. Mix all the ingredients, and a clear solution of three gallons results, which is the proper amount for a body weighing one hundred and fifty pounds. The solution may be injected into the aorta, but it is much less trouble to inject into the brachial or femoral artery, or the femoral vein may be selected. If an artery is used, the injection should be towards the capillaries, and if a vein, towards the heart. To satisfactorily inject a subject a good anatomical syringe is desirable, but a gravity-syringe can be improvised with rubber-tubing, a stopcock, and a terminal glass tube with the tip drawn to a fine point. I would suggest to Dr. Kennedy that he experiment on a few animals, and then he can devise a formula to suit himself. I have found that a fluidrachm of the solution recommended is sufficient for each ounce of weight of the animal to be preserved. For preserving human bodies, two and a half fluidounces for each pound is a safe estimate."—*Medical Record*.

CHLOROFORM AS A HEMOSTATIC.—Dr. Betz (*Memorabilien*, 1885, No. 5, *ibid.*) relates two cases of uterine hemorrhage in which he found chloroform of great utility in its arrest. In the first case fearful hemorrhage followed a protracted labor which had to be terminated by the forceps. There was atony of the uterus, and hot water injected into the uterus failed to produce contractions. A sponge, saturated with chloroform, was passed into the uterus, and some chloroform was poured on the abdomen. On the introduction of the sponge, a severe burning pain was felt along the genital passage, strong contractions of the uterus took place, and the bleeding ceased. The second case was one of hemorrhage following an abortion at four months, which continued in spite of the ordinary treatment, and the patient became cold and pulseless. Chloroform was applied locally to the inside of the uterus through the means of a sponge, in the same way as in the first case. The same burning pain was experienced, contractions of the uterus took place, and an arrest of the hemorrhage en-

sued. The action of chloroform, Dr. Betz observes, differs from that of the ordinary astringents, not inducing coagulation of the blood as they do, but causing narrowing and closure of the blood-vessels in consequence of muscular contraction. The use of chloroform in this way may supersede the hypodermic injection of ether.—*New York Medical Journal*.

MISCELLANY.

HARVARD'S JUBILEE HONORS TO PHYSICIANS.—The two-hundred-and-fiftieth anniversary of the founding of Harvard University was observed with impressive ceremonies last month, the exercises continuing for four days. Honorary degrees were conferred upon a number of distinguished persons, among whom were Joseph Leidy, M.D., Professor of Anatomy in the University of Pennsylvania, S. Weir Mitchell, M.D., of Philadelphia, and J. S. Billings, M.D., of Washington, D.C.

PENNSYLVANIA SCHOOL OF ANATOMY.—Dr. George McClellan will give, by request, a course of popular lectures on anatomy on Friday afternoons at 4.30 o'clock. The course is especially designed for instruction in anatomy with reference to art, and it will be illustrated by diagrams, preparations, models, and extempore free-hand drawings.

THE PHILADELPHIA SCHOOL OF ANATOMY, located at Tenth and Arch Streets, is conducted by Henry C. Boenning, M.D., who also gives courses on operative surgery to students and graduates.

COLDEN'S BEEF-TONIC is used with advantage by some physicians in this city in the nervous disorders accompanying malnutrition.

NOTES AND QUERIES.

OBITUARY.

JOHN P. GRAY, M.D., LL.D., Superintendent of the New York State Lunatic Asylum at Utica, New York, died at the Asylum on Monday, November 29, 1886, of Bright's disease. Dr. Gray was born in Centre County, Pennsylvania; August 6, 1825. He was educated in the common schools at Bellefonte and at Dickinson College, receiving the degree of A.M. in 1846. His medical degree was received at the University of Pennsylvania in 1848. After serving for a time at Blockley, he went to Utica in 1851 as an assistant physician. In 1853 he was appointed Acting Superintendent, and in 1854 succeeded Dr. Benedict as Superintendent.

As Superintendent of the Asylum, Dr. Gray made himself felt in a way that had a more than local influence. He insisted upon a high standard of general and professional care, and carried his views into every department of asylum administration.

He early established the rule of receiving for assistant medical officers young men of thorough medical training, making general hospital service a prerequisite to appointment. As a result of this high standard and the training received under Dr. Gray, no less than six State asylums have called their superintendents from Utica since his appointment as its chief medical officer.

He took an active interest in hospital architecture, and was the author of the plans for the asylums at Kalamazoo, Michigan, and Buffalo, New York.

As the editor of the *American Journal of Insanity*, and

in addresses before medical societies and other scientific bodies, Dr. Gray contributed largely to the literature of Insanity and Medical Jurisprudence. He was an earnest advocate of the physical basis of insanity, and early omitted from his reports any enumeration of the so-called moral causes.

He took a strong interest in pathological investigations in insanity, and nearly thirty years ago contemplated and suggested the institution of systematic pathological study in the Asylum. It was not, however, until several years later that he was able to put his views into practical operation, when he was the first superintendent to appoint a medical officer in an insane asylum for special pathological work.

The high standard of care of the insane attained by the State of New York is largely due to the influence of Dr. Gray, and the example of Utica has been widely felt, and for good. He was a man of positive ideas, and seldom permitted opposition to intimidate or influence him. In any body of men he made himself felt, and, while in many matters of a conservative tendency, his influence was always in the direction of advance.

As a medical witness in cases of public interest he was widely known. His most exhaustive services in the Gulteau trial are probably the best remembered. During the war, he several times gave the government the benefit of his advice, and his services were employed in the trial of the Lincoln assassins.

In 1874 he was appointed Professor of Psychological Medicine in Bellevue Hospital Medical College, and in 1876 received a similar appointment from the Albany Medical College. Both of these positions he filled with ability. He was a member of the American Medical Association, at one time President of the New York State Medical Society, and recently President of the New York State Medical Association. In 1876 he was chairman of the Psychological Section of the International Medical Congress, and he held the same appointment for the Congress of 1887. He was a member of the Association of Superintendents of Asylums for the Insane, and once its President. The British, French, and Italian Medico-Psychological Associations elected him to honorary membership.

In 1882, Dr. Gray was shot by an insane man resident in the city of Utica. The ball from a large navy revolver entered over the left malar prominence and came out at the centre of the right cheek. From the shock of this, although the wound was not serious, he never fully recovered, and the impediment to free respiration produced by the cicatrization in the course of the bullet, which traversed the floor of each nostril, was a continual source of annoyance.

In the winter of 1883-86 his health became seriously impaired, and the managers of the Asylum gave him leave of absence. He spent some weeks in the South, and returned much improved. In July he sailed for Europe, returning early in October. He felt that the trip had been of benefit, but shortly after his return he was exposed to cold, had a chill, some bronchitis, considerable dyspnoea, and disturbance of circulation. His kidneys had been diseased for some time, but a more active process was lighted up, which terminated in death from uræmic coma.

In his death the profession of medicine has lost an active and earnest practitioner, one who in his special department has added honor and reputation to American medicine, and whose work as an alienist will long continue to influence for good the public care of the insane.

E. N. B.

OFFICIAL LIST

OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY FROM NOVEMBER 21, 1886, TO DECEMBER 4, 1886.

LIEUTENANT COLONEL B. J. D. IRWIN, ASSISTANT-MEDICAL PURVEYOR.—Relieved from temporary duty in New York City, and of the charge of the medical purveying dépôt in that city, and ordered to San Francisco, California, to take charge of the medical purveying dépôt in that city. S. O. 270, A. G. O., November 19, 1886.

MAJOR F. L. TOWN, SURGEON.—Ordered from Fort Clark, Texas, to Post of San Antonio, Texas, to relieve Surgeon J. P. Wright. S. O. 159, Department of Texas, November 15, 1886.

MAJOR JOSEPH R. GIBSON, SURGEON.—Ordered for duty as post-surgeon, Fort Lyon, Colorado. S. O. 134, Department of Missouri, November 20, 1886.

MAJOR DANIEL G. CALDWELL, SURGEON.—Granted twenty days' extension of his leave of absence. S. O. 278, A. G. O., December 1, 1886.

CAPTAIN P. R. BROWN, ASSISTANT-SURGEON.—Leave of absence for seven days, granted by post orders, is extended twenty-three days. S. O. 124, Department of Arizona, November 24, 1886.

CAPTAIN E. B. MOSELEY, ASSISTANT-SURGEON.—Relieved from duty as attending surgeon in San Francisco, California. S. O. 99, Division of the Pacific, November 19, 1886.

CAPTAIN EDW. B. MOSELEY, ASSISTANT-SURGEON.—Directed to take charge of the medical purveying dépôt, San Francisco, California, until the arrival of a proper bonded officer. S. O. 99, Division of the Pacific, November 19, 1886.

CAPTAIN LOUIS S. TESSON, ASSISTANT-SURGEON.—Granted leave of absence for four months, to date from November 13, 1886. S. O. 278, A. G. O., December 1, 1886.

CAPTAIN J. L. POWELL, ASSISTANT-SURGEON.—Ordered for duty as post-surgeon, Fort Supply, Indian Territory. S. O. 134, Department of Missouri, November 20, 1886.

FIRST-LIEUTENANT PETER R. EGAN, ASSISTANT-SURGEON.—Assigned to duty at Fort Clark, Texas. S. O. 162, Department of Texas, November 22, 1886.

FIRST-LIEUTENANT WILLIAM J. WAKEMAN, ASSISTANT-SURGEON.—Leave of absence extended three months. S. O. 274, A. G. O., November 26, 1886.

FIRST-LIEUTENANT W. D. McCaw, ASSISTANT-SURGEON.—Granted leave of absence for two months, to take effect when his services can be spared. S. O. 274, A. G. O., November 26, 1886.

FIRST-LIEUTENANT FREEMAN V. WALKER, ASSISTANT-SURGEON.—Assigned to duty at Fort McIntosh, Texas. S. O. 159, Department of Texas, November 15, 1886.

FIRST-LIEUTENANT PAUL CLENDENIN, ASSISTANT-SURGEON (recently appointed).—Ordered to report to commanding general, Department of Texas, for assignment to duty. S. O. 271, A. G. O., November 20, 1886.

FIRST-LIEUTENANT PAUL CLENDENIN, ASSISTANT-SURGEON.—Assigned to duty at Fort Davis, Texas. S. O. 166, Department of Texas, November 29, 1886.

FIRST-LIEUTENANT C. L. G. ANDERSON, ASSISTANT-SURGEON (recently appointed).—Ordered for assignment in Department of Arizona. S. O. 277, A. G. O., November 30, 1886.

FIRST-LIEUTENANT ROBERT R. BALL, ASSISTANT-SURGEON (recently appointed).—Ordered for duty in Department of the Missouri. S. O. 278, A. G. O., December 1, 1886.

CAPTAIN HENRY JOHNSON, MEDICAL STOREKEEPER, will, in addition to his present duties, assume charge of the medical purveying dépôt in New York City, as Acting Assistant Medical Purveyor. S. O. 270, A. G. O., November 19, 1886.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY FOR THE TWO WEEKS ENDED DECEMBER 4, 1886.

SURGEON HOMER L. LAW, U.S.N.—Ordered before the Retiring Board, December 2, 1886.

PASSED ASSISTANT-SURGEON GEORGE C. LIPPINCOTT, U.S.N.—Ordered before the Retiring Board, December 6, 1886.

SURGEON WILLIAM G. FARWELL, U.S.N.—Detached from the "Kearsarge," proceed home, and wait orders.

PASSED ASSISTANT-SURGEON J. D. GATEWOOD, U.S.N.—Detached from the "Kearsarge," proceed home, and wait orders.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE FOR THE TWO WEEKS ENDED NOVEMBER 27, 1886.

WILLIAMS, L. L., ASSISTANT-SURGEON.—Granted leave of absence for twenty-four days, to take effect when relieved, November 15, 1886.

McINTOSH, W. P., ASSISTANT-SURGEON.—Granted leave of absence for twenty-seven days, November 26, 1886.

NORMAN, SEATON, ASSISTANT-SURGEON.—When relieved, to rejoin station (New York); granted leave of absence for twenty-three days, November 27, 1886.